



## Assess the awareness regarding breast cancer among women seeking out-patient care at family planning OPD of SSH, BHU, Varanasi

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### Abstract

**Introduction:** Breast cancer, a major global health concern, disproportionately affects women, with increasing incidence in developing countries. Effective strategies include early detection, improved healthcare access, and addressing lifestyle risk factors.

**Methodology:** This cross-sectional descriptive study at the Family Planning Outpatient Department (FP-OPD) of Sir Sunderlal Hospital, Banaras Hindu University (SSH, BHU), aims to assess breast cancer awareness among women seeking outpatient care. It focuses on understanding their knowledge of breast cancer signs and symptoms, along with awareness of associated risk factors. The study includes 50 participants selected through non-probability convenience sampling, targeting women and their female relatives attending the FP-OPD. Utilizing the Breast Cancer Awareness Measure (B-CAM) questionnaire, the research gathers demographic data and evaluates awareness through three sections: identifying warning signs, awareness of breast self-examination, and knowledge of risk factors.

**Result:** The study highlights significant gaps in women's awareness of breast cancer warning signs, with a notable recognition of symptoms such as breast lump/thickening (56%), nipple discharge (50%), and breast or armpit pain (48%). However, lesser-known indicators like nipple changes, alterations in breast skin color or shape, and nipple retraction are largely unrecognized. This underscores the need for targeted education on less common but crucial symptoms. Regarding breast self-examination (BSE), 66% of participants were unaware of its importance, and only 10% practiced BSE every six months. Confidence in detecting breast changes varied, with 28% expressing no confidence and 22% feeling very confident. In terms of risk factors, while a significant majority recognized family history (74%) and early menarche (66%) as risks, awareness varied for factors like hormone replacement therapy (50% unsure) and alcohol consumption (56% disagreed).

**Conclusion:** These findings underscore the imperative for comprehensive education programs to enhance awareness of breast cancer signs, promote regular self-examination practices, and improve understanding of risk factors among women attending Sir Sunderlal Hospital's Family Planning Outpatient Department in Varanasi.

**Keywords:** Awareness, breast cancer, women, out-patient care, family planning OPD

### Introduction

Cancer, despite being one of the most preventable and treatable chronic diseases, continues to exact a heavy toll globally, surpassing AIDS, tuberculosis, and malaria combined in its impact on mortality. With approximately 25 million people currently living with cancer worldwide, breast cancer stands out as the most prevalent form of cancer among women globally, including in countries like India where it represents nearly a quarter of all female cancers [1]. The statistics surrounding breast cancer underscore both its increasing incidence and alarming mortality rates, especially in developing regions. By 2030, the global burden of breast cancer is projected to exceed 2 million cases annually, with a significant proportion arising from developing countries. Despite lower age-standardized incidence rates in India compared to countries like the UK, mortality rates are nearly comparable, pointing to challenges in early detection and access to timely treatment [2].

The shift towards chronic non-communicable diseases, including cancer, reflects a broader epidemiological

transition worldwide. Over the past two decades, chronic diseases have overtaken infectious diseases as the leading cause of death globally, except in Africa. This transition is driven by factors such as aging populations, urbanization, and lifestyle changes, which contribute to increased incidence rates of cancers like breast cancer [3]. Within India, breast cancer incidence rates vary significantly across regions, influenced by factors ranging from demographics to lifestyle choices. States like Maharashtra and Delhi show higher rates, possibly due to urbanization and associated lifestyle changes. Furthermore, disparities in healthcare access and awareness contribute to varying outcomes in different regions, with implications for mortality rates [4].

Efforts to combat breast cancer require multifaceted approaches including improved cancer literacy, early detection programs, and equitable access to healthcare services. Addressing risk factors such as obesity, tobacco use, and alcohol consumption can also play a crucial role in prevention. By prioritizing these strategies, global health systems can work towards reducing the burden of breast

cancer and improving outcomes for millions of individuals affected worldwide [5].

**Need of the study**

Assessing the awareness of breast cancer among women is critical for enhancing early detection rates and improving health outcomes. By understanding women's knowledge of breast cancer symptoms, risk factors, and the importance of regular screening, healthcare providers and policymakers can tailor targeted education and intervention strategies. Increased awareness empowers women to recognize potential signs of breast cancer earlier, seek timely medical advice, and engage in preventive measures, ultimately leading to improved survival rates and reduced mortality [6]. Moreover, awareness studies help identify cultural and societal barriers that may impact healthcare-seeking behaviors, guiding the development of culturally sensitive approaches to breast cancer education and support. Overall, comprehensive awareness assessments play a pivotal role in shaping effective public health initiatives aimed at combating breast cancer and promoting women's health globally [7].

Kulothungan *et al.* conducted a study to assess the burden of female breast cancer (BC) in India using data from the national cancer registry programme. Their findings for 2016 revealed a significant burden of 515.4 Disability Adjusted Life Years (DALYs) per 100,000 women after age standardization. The study highlighted considerable variation in burden metrics at the state level, with states like Tamil Nadu, Telangana, Karnataka, and Delhi showing higher rates compared to states in the eastern and north-eastern regions. Looking ahead to 2025, projections suggest a substantial increase in the burden, potentially reaching 5.6 million DALYs. These findings underscore the urgent need for targeted interventions and resource allocation to mitigate the growing burden of breast cancer in India, emphasizing the importance of tailored public health strategies to address regional disparities and improve outcomes for affected women nationwide [8].

**AIM of the study**

The aim of this study is to assess the awareness regarding breast cancer among women seeking outpatient care at the Family Planning Outpatient Department (FP-OPD) of Sir Sunderlal Hospital, Banaras Hindu University (SSH, BHU), Varanasi.

**Methodology**

The objectives of this cross-sectional descriptive study conducted at the Family Planning Outpatient Department (FP-OPD) of Sir Sunderlal Hospital, Banaras Hindu University (SSH, BHU) are to evaluate the level of awareness among women regarding breast cancer, specifically those seeking outpatient care. The study aims to assess awareness about the signs and symptoms of breast cancer, as well as knowledge regarding risk factors associated with the disease. The target population includes women attending the FP-OPD at SSH, BHU, with a sample size of 50 participants selected using a non-probability convenience sampling technique. Inclusion criteria encompass women and their female relatives visiting the

FP-OPD, while those unwilling to participate are excluded. The research tool employed is the Breast Cancer Awareness Measure (B-CAM) questionnaire, consisting of two parts. Part 1 collects demographic variables such as age, gender, residence, marital status, education, income, religion, occupation, number of children, and family history of cancer. Part 2 comprises three sections: Section A evaluates knowledge of warning signs of breast cancer with 10 items, Section B assesses awareness of breast self-examination with 3 items, and Section C examines awareness of breast cancer risk factors using a five-point Likert scale across 9 items. This study aims to provide insights into current levels of awareness among women visiting the FP-OPD at SSH, BHU, to inform strategies for improving breast cancer awareness and early detection initiatives.

**Results**

**Socio-demographic data**

The study enrolled a total number of 50 women. The mean age of the participants was 29.12±6.73 years. The 66% women were from rural areas. Females participating in this study 88% were married, 48% women received formal education up to intermediate and 84% were housewives and 98% of them was not have family history of any type of cancer.

**Awareness regarding warning signs of breast cancer**

**Table 1:** awareness regarding warning signs of breast cancer

S.N.	Warning signs	Awareness		
		Yes f(%)	No f(%)	Don't know f(%)
1.	Breast lump/thickening	28(56)	14(28)	8(16)
2.	Lump in armpit	18(36)	21(42)	11(22)
3.	Bleeding or discharge from nipple	25(50)	16(32)	9(18)
4.	Pulling in of nipple	10(20)	21(42)	19(38)
5.	change in the position of nipple	11(22)	23(46)	16(32)
6.	Alteration in skin color of breast(redness)	19(38)	22(44)	9(18)
7.	change in the size of breast /nipple	15(30)	25(50)	10(20)
8.	change in shape of breast/nipple	14(28)	27(54)	9(18)
9.	pain in breasts/armpit	24(48)	18(36)	8(16)
10.	Dimpling of breast skin	15(30)	18(36)	17(34)

Table 1 represents the awareness of women about warning signs of breast cancer. the certain Warning signs such as breast lump/thickening (56%),bleeding/discharge from nipple(50%)pain in armpit/breast(48%) women identified as warning sign for breast cancer certain warning signs of breast cancer such as lump in nipple(42%),pulling in of nipple(42%),change in position of nipple(46%),alteration in skin color of breast(44%),change in size of nipple/breast(50%),change in shape of breast/nipple(54%) not considered as warning sign of breast cancer by women. Most of them dose not heard about these symptoms. Results showed that most of the women have very less awareness of common warning signs of breast cancer.

**Awareness regarding breast self-examination**

**Table 2:** awareness regarding breast self-examination

S.N.	Questions	Frequency	Percentage
1.	Have you ever heard about breast self-examination?		
	Yes	7	14
	No	11	22
	Don't know	32	64
2.	How often do BSE should be performed?		
	Rarely or never	33	66
	At least once every 6 months	5	10
	At least once a month	7	14
	At least once a week	5	10
3.	Are you confident you would notice a change in your breasts?		
	Not at all confident	14	28
	Not very confident	10	20
	Fairly confident	15	30
	Very confident	11	22

Table 2 shows the awareness about breast self-examination among respondents. 66% participants do not know about breast self-examination. 10% women check their breast at least once every 6months.64%does not noticed any change in their breast. About 28% not at all confident to notice change in breast, and 22% very confident to notice change in breast, 30% are fairly confident and 20%not very confident.

**Awareness regarding risk factors of breast cancer**

The responses regarding awareness of risk factors for breast cancer among women attending the Family Planning Outpatient Department (FP-OPD) of Sir Sunderlal Hospital, Banaras Hindu University (SSH, BHU), Varanasi. Here is the interpretation of the data:

1. Past history of breast cancer: 60% of respondents either agree or strongly agree that a past history of breast cancer is a risk factor, whereas 34% are unsure or disagree.
2. Hormone replacement therapy: Half of the respondents (50%) are unsure whether hormone replacement therapy is a risk factor, while 36% agree or strongly agree that it is a risk factor.
3. Alcohol consumption: There is mixed awareness regarding alcohol consumption as a risk factor, with 56% either disagreeing or strongly disagreeing that it contributes to breast cancer risk.
4. Overweight (BMI over 25): 52% acknowledge overweight as a risk factor, while 46% are unsure or disagree.
5. Family history of breast cancer: A significant majority (74%) recognize family history as a risk factor for breast cancer.
6. Late pregnancy: 54% perceive late pregnancy as a risk factor, whereas 32% are unsure or disagree.
7. Early menarche: 66% recognize early menarche as a risk factor for breast cancer.
8. Late menopause: Responses are evenly split regarding late menopause as a risk factor, with 46% agreeing or strongly agreeing.

**Less physical activity:** There is awareness among 50% of respondents that less physical activity increases breast

cancer risk, while 40% are either unsure or disagree.

**Discussion**

In our study among women attending the Family Planning Outpatient Department at Sir Sunderlal Hospital, Banaras Hindu University, Varanasi, we identified significant gaps in awareness regarding breast cancer and its associated risk factors and warning signs. Over three- quarters of the participants were found to have little to no awareness about breast cancer, with higher levels of education and socioeconomic status correlating with greater awareness. Alarmingly, none of the women were aware of breast self-examination (BSE) or practiced it. Awareness of common warning signs such as breast lumps (56%), breast or armpit pain (48%), and bloody nipple discharge (50%) was notably low, reflecting a critical lack of knowledge crucial for early detection. Similarly, understanding of risk factors like past history of breast cancer was limited, with only 36% acknowledging it as a potential risk factor. Furthermore, awareness of BSE was virtually nonexistent, with 66% of women unaware of its importance. While mammography is recommended for screening, its accessibility and cost pose challenges in resource-constrained settings like India. These findings underscore the urgent need for targeted educational initiatives to enhance breast cancer awareness, early detection practices, and ultimately improve health outcomes among women in India.

Recent studies from Finland and Canada initially suggested benefits of breast self-examination (BSE) in reducing breast cancer (BC) mortality across all age groups. Despite current debates on its effectiveness, teaching BSE remains valuable as it empowers women to promptly identify and report any abnormal breast changes, facilitating early medical intervention. Encouraging positive health-care behaviors through BSE education can significantly enhance health awareness and promote proactive health-seeking behaviors among women, thereby potentially improving outcomes in breast cancer detection and treatment <sup>[9]</sup>. A cross sectional study was conducted by Abinaya Kumar to assess the breast cancer awareness among women in low socioeconomic area of Chennai, results reveals that poor knowledge was present among participant regarding breast cancer <sup>[10]</sup>.

**Conclusion**

In conclusion, the exploration of breast cancer awareness and prevention reveals both challenges and opportunities. The studies from Finland and Canada initially suggesting the benefits of breast self-examination (BSE) underscored its potential role in early detection and mortality reduction, despite ongoing debates in recent literature. Empowering women with knowledge about BSE remains crucial, as it enables them to detect and report breast abnormalities promptly, facilitating timely medical intervention and potentially improving treatment outcomes.

However, findings from studies like Abinaya Kumar's cross-sectional study in Chennai's low socioeconomic areas highlight persistent gaps in breast cancer knowledge among certain populations. Poor awareness about breast cancer risks, symptoms, and screening methods among these women underscores the critical need for targeted education and outreach efforts. By addressing these gaps through

comprehensive awareness campaigns and accessible healthcare services, we can enhance early detection rates and overall survival outcomes. Ultimately, promoting proactive health behaviors, including regular BSE and timely medical consultation, is essential in combating breast cancer effectively. With continued research, education, and community engagement, we can strive towards reducing the burden of breast cancer globally and improving the quality of life for women affected by this disease.

### Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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### References

1. World Health Organization. Cancer; c2024. Who.int. [cited 2024 Jul 15]. Available from: <https://www.who.int/news-room/fact-sheets/detail/cancer>
2. Arnold M, Morgan E, Rumgay H, Mafra A, Singh D, Laversanne M, *et al.* Current and future burden of breast cancer: Global statistics for 2020 and 2040. *Breast.* 2022;66:15–23. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0960977622001448>
3. World Health Organization. Noncommunicable diseases; c2024. Who.int. [cited 2024 Jul 15]. Available from: <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
4. Jonnada PK, Sushma C, Karyampudi M, Dharanikota A. Prevalence of molecular subtypes of breast cancer in India: A systematic review and meta-analysis. *Indian J Surg Oncol.* 2021;12(Suppl 1):152–63. Available from: <https://link.springer.com/10.1007/s13193-020-01253-w>
5. Basu P, Zhang L, Hariprasad R, Carvalho AL, Barchuk A. A pragmatic approach to tackle the rising burden of breast cancer through prevention & early detection in countries “in transition.” *Indian J Med Res* [Internet]. 2020;152(4):343–55. Available from: <http://www.ijmr.org.in/text.asp?2020/152/4/343/305157>
6. Pan American Health Organization. [cited 2024 Jul 15]. Available from: <https://www3.paho.org/hq/dmdocuments/2016/KNOWLEDGE-SUMMARY---EARLY-DETECTION.pdf>
7. Sawhney R, Nathani P, Patil P, Bhandarkar P, Veetil DK, Venghateri JB, *et al.* Recognising socio-cultural barriers while seeking early detection services for breast cancer: A study from a Universal Health Coverage setting in India. *BMC Cancer* [Internet]. 2023;23(1):881. Available from: <https://bmccancer.biomedcentral.com/articles/10.1186/s12885-023-11359-3>
8. Kulothungan V, Ramamoorthy T, Sathishkumar K, Mohan R, Tomy N, Miller GJ, *et al.* Burden of female breast cancer in India: estimates of YLDs, YLLs, and DALYs at national and subnational levels based on the national cancer registry programme. *Breast Cancer Res Treat* [Internet]. 2024;205(2):323–32. Available from: <http://dx.doi.org/10.1007/s10549-024-07264-3>
9. Baxter N, the Canadian Task Force on Preventive Health Care. Preventive health care, 2001 update: Should women be routinely taught breast self-examination to screen for breast cancer? *CMAJ: Canadian Medical Association Journal.* 2001;164(13):1837.
10. Kumar AVV, Yenuganti VV. Breast Self-examination and Breast Cancer Awareness among women in a low socioeconomic area of Chennai, India. *J Evol Med Dent Sci* [Internet]. 2021;10(21):1588–93. Available from: <https://go.gale.com/ps/i.do?p=HRCA&sw=w&iissn=22784748&v=2.1&it=r&id=GALE%7CA663994700&sid=googleScholar&linkaccess=abs>