



AWARENESS OF BREAST CANCER AMONG MBBS FEMALE MEDICAL STUDENTS IN KIMS AND RF(AMALAPURAM)

Dr. Komati Devi Sri Durga

(House surgeon) KIMS&RF, Amalapuram, Andhra Pradesh.

Dr. Motupalli Sri Chandana

(House surgeon) KIMS&RF, Amalapuram, Andhra Pradesh.

ABSTRACT

Background: Breast cancer is the most common cancer among women worldwide. Early detection through screening and awareness significantly improves the survival rates. Medical students especially female MBBS students, play a crucial role in spreading awareness and guiding community. However their own knowledge and awareness levels need to be assessed to ensure they are well-equipped for this role. **Objective:** To assess the awareness and knowledge and perception of breast cancer among female MBBS students at KIMS & RF, focusing on early detection, risk factors, self examination and the role of awareness campaigns. **Methods:** A cross sectional study was conducted among female MBBS students at KIMS & RF. Data was collected through a structured questionnaire covering breast cancer awareness, screening practices and perceptions regarding stigma and awareness campaigns. **Results:** The majority of the participants (98.3%) recognized the importance of early detection in improving survival rates. However, only 35% had undergone clinical breast examination, indicating gaps in personal screening behaviour. A significant proportion (80.8%) believed that discussing breast cancer openly is still stigmatized. While 95.8% encouraged regular screenings and 85% felt that current breast cancer awareness campaigns in the country were insufficient. **Conclusion:** While awareness levels among female MBBS students at KIMS & RF are high, personal screening practices are low. There is a need for enhanced educational initiatives, practical training and destigmatization efforts to ensure future health care professionals can actively promote breast cancer awareness and screening within the community.

KEYWORDS :

INTRODUCTION

Breast cancer is one of the most prevalent cancers affecting woman worldwide, making early detection and awareness crucial for improving outcomes. For female medical students at KIMS Amalapuram, awareness is essential both for personal health and their future role as health care providers. Even though there are better ways to detect and treat breast cancer today, a lack of awareness about breast cancers persists, even among medical students. Understanding risk factors, symptoms, screening methods like breast self examination (BSE) and mammography and the importance of early diagnosis can empower them both personally and professionally. This study aims to assess the level of awareness, knowledge and attitudes towards breast cancer among MBBS female medical students at KIMS & RF Amalapuram. By identifying gaps in understanding can help improve medical education, ensuring they are well equipped to promote early detection and preventive strategies in their future medical practice.

AIM :

To assess the level of awareness, knowledge, and understanding of breast cancer among MBBS female medical students at KIMS & RF Amalapuram.

OBJECTIVES

To assess knowledge - Evaluate how much MBBS female medical students at KIMS & RF Amalapuram know about breast cancer, including risk factors and its symptoms.

To evaluate awareness of screening methods - Understand their knowledge of early detection techniques like breast self examination (BSE), clinical breast examination (CBE), and mammography.

To identify gaps in awareness - Find areas where students lack knowledge or have misconceptions about breast cancer and its prevention.

To analyse attitude towards early detection - Assess their perception of importance of screening and early diagnosis in improving patient outcomes.

Suggest improvements - Recommend ways to improve breast cancer education so future doctors are prepared to spread awareness and promote early detection.

MATERIALS AND METHODOLOGY

Study Design :

This is a cross sectional study conducted among MBBS female medical students at KIMS & RF Amalapuram to assess their awareness and knowledge of breast cancer.

Study Area:

This research focuses on MBBS Female medical students at KIMS Amalapuram.

Study Duration:

This study is conducted for a period of 3 months from November 2024 to February 2025

Sample Size :

This study includes 120 female medical students particularly in MBBS. They were selected through convenience sampling, which means they were chosen based on their availability and willingness to participate.

Inclusion Criteria:

MBBS female medical students from all academic years who consent to participate.

Exclusion Criteria:

Male students and those unwilling to participate.

Informed Consent: All students were fully informed about the study's purpose, procedures and their rights including confidentiality.

Ethical Considerations: Approval was obtained from the Institutional ethics committee.

Data Collection Method:

A structured questionnaire is used to collect data. The questionnaire will include sections on General knowledge

about breast cancer (risk factors and symptoms).

Awareness of screening methods (breast self- examination, clinical breast examination, mammography).

Attitudes and practices related to early detection.

The questionnaire is self administered and distributed online as google forms.

Data Analysis And Interpretation:

Data was entered into a Microsoft excel 2016 spreadsheet . Statistical analysis was performed using IBM SPSS software.

RESULTS

Age Of The Participants:

The study examined the age of the participants in a sample of 120 individuals. The results shows that :

The majority of the participants (77.5%) were between 21 and 25 years. The most common age was 25 years (22 participants, 18.3%) followed by 24 years (21 participants, 17.5%) and 22 years (20 participants, 16.7%). The least represented age was 17 years with only 1 participant (0.8%).

Year Of Study:

- The study examined the number of participants from each academic year including internship of MBBS course in a sample size of 120 participants. It shows that
- First year students – 13 participants (10.8%)
- Second year students – 13 participants (10.8%)
- Third year students- 17 participants (14.2%)
- Final year students – 15 participants (12.5%)
- Interns – 62 participants (51.7%)
- The results shows that majority of the respondents are interns.

Have you attended any formal Lectures of Breast Cancer?

The study represents number of participants attended any formal 120 lectures on breast cancer in a sample size of participants. The results shows that:

- A majority(78.3%) of respondents have attended formal lecturers on breast cancer, indicating that most students have received structured education on the topic.
- A significant 21.7% have not attended any formal lectures suggesting a gap in breast cancer education for a proportion of students.

Have you heard about breast cancer before?

The study represents the number of participants in a sample of 120 have heard about breast cancer before. The results shows that:

The majority (96.7%) of participants have heard about breast cancer, indicating a high level of general awareness.

Family History Of Breast Cancer:

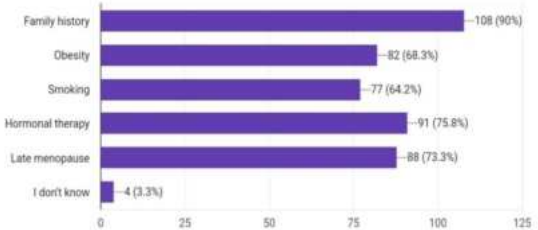
The study illustrates the responses of 120 participants regarding their family history of breast cancer. The results shows that:

- A vast majority (90%) of participants do not have a family history of breast cancer , which shows that most breast cancer cases occur in individuals without a hereditary link.
- Only 10% reported a family history of breast cancer , which is a significant factor in increasing one's risk for the disease.

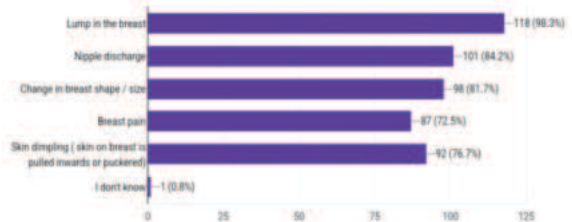
RISK FACTORS OF BREAST CANCER :

- The above bar graph represents the responses of 120 participants:
- Family history (90%) is the most commonly recognized risk factor, indicating strong awareness of genetic influences.

- Obesity (68.3%) and smoking (64.2%) are moderately recognized risk factors, suggesting some gaps in awareness of life style-related risks.
- Hormonal therapy (75.8%) and late menopause (73.3%) are well recognized risk factors, showing good knowledge about hormonal influences on breast cancer.
- Only 3.3% of participants admitted not knowing any risk factors, highlighting a relatively high level of general awareness among respondents.

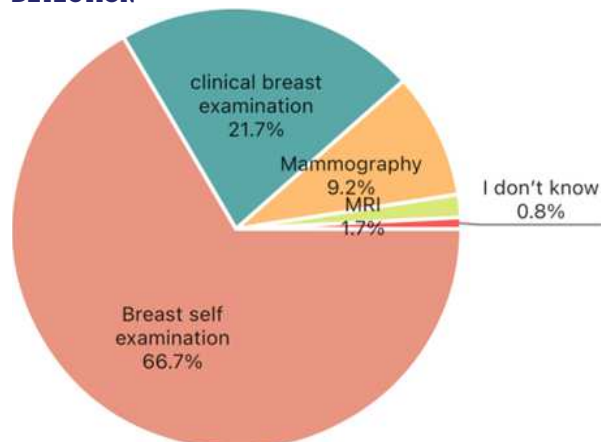


COMMON SYMPTOMS OF BREAST CANCER



- The above bar graph represents the responses of 120 participants regarding their awareness of common symptoms of breast cancer. The results shows that:
- A lump in the breast is the most recognized symptom (98.3%) , showing strong awareness of this key indicator.
- Nipple discharge (84.2%) and changes in breast shape / size (81.7%) are also well recognized.
- Breast pain (72.5%) and skin dimpling (76.7%) are less recognized compared to other symptoms, indicating potential gaps in awareness.
- Only 0.8% of participants are unaware of any symptoms, suggesting overall knowledge among respondents.

MOST COMMON RECOMMENDED METHOD FOR EARLY DETECTION

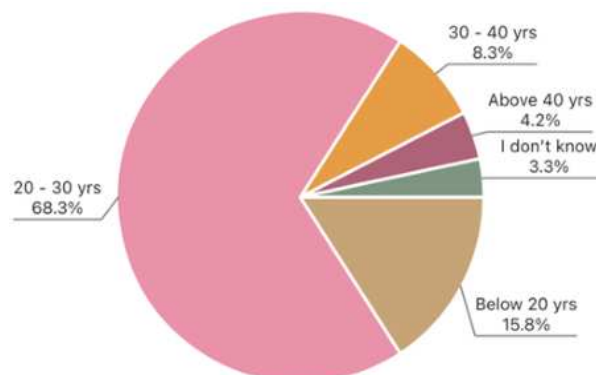


The above pie chart presents the responses of 120 participants regarding the most commonly recommended method for early breast cancer detection. The results shows that:

- Breast self- examination (BSE) is the most recognized method, with 80 participants (66.7%) identifying it as an early detection method.
- Clinical breast examination (CBE) follows, with 26 participants (21.7%) indicates some awareness of professional screening.

- Mammography a key screening method was chosen by only 11 participants (9.2%) suggests a gap in awareness.
- MRI and I don't know responses were minimal with 2 (1.7%) and 1 (0.8%) participants showing that most participants had some knowledge on detection methods.

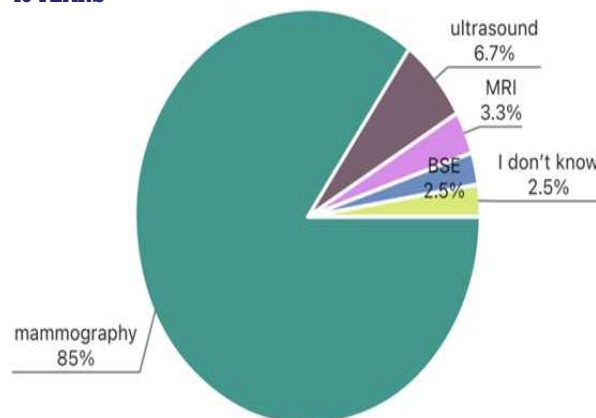
AGE AT WHICH WOMEN SHOULD START PERFORMING BREAST SELF EXAMINATION



The above pie chart presents the responses of 120 participants regarding the age at which women should start performing breast-self examination (BSE). The results shows that:

- The majority, 82 participants (68.3%) believe BSE should start between 20-30 years along with medical recommendations for early awareness.
- 19 participants (15.8%) think it should begin before 20 yrs, showing strong awareness among younger individuals.
- 10 participants (8.3%) suggested that BSE should start between 30-40 years.
- 5 participants (4.2%) believe it should begin above 40 years.
- 4 participants (3.3%) were uncertain about the appropriate age to start BSE.

RECOMMENDED SCREENING TEST FOR WOMEN ABOVE 40 YEARS



The above pie chart presents the responses of 120 participants regarding the recommended screening test for women over 40 years. The results shows that:

- Mammography is correctly identified by the majority 102 participants (85%).
- Ultrasound was selected by 8 participants (6.7%) and MRI was selected by 4 participants (3.3%) but these are typically used in high risk patients.
- Breast self examination (BSE) was selected by 3 participants (2.5%). It is a useful method but not a primary screening method.
- Remaining 3 participants (2.5%) were not sure about screening method in women over 40 years.

HAVE THEY EVER PERFORMED BREAST- SELF EXAMINATION (BSE) ?

The study presents the responses of 120 participants regarding whether they performed a breast- self examination (BSE). The results shows that:

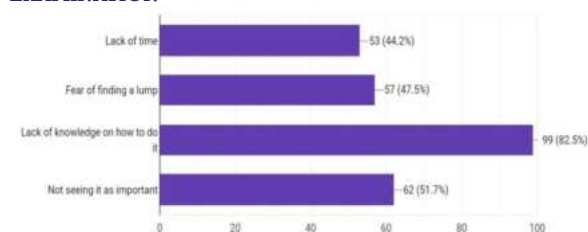
- 88 participants (73.3%) have performed BSE, indicating a good level of awareness and practice.
- 32 participants (26.7%) have never performed BSE, suggesting that some women may need more education and encouragement to adopt this practice.

HOW OFTEN THEY PERFORM BREAST- SELF EXAMINATION (BSE) ?

The study presents the responses of 120 participants regarding how they perform breast-self examination (BSE). The results shows that:

- 48 participants (40%) performs BSE monthly, which aligns with recommended practice.
- 31 participants (25.8%) perform BSE every few months and another 31 participants (25.8%) perform BSE once a year. This indicates irregular self examinations.
- 10 participants (8.3%) never perform BSE, suggesting a need for increased awareness.

MAIN BARRIERS TO PERFORMING BREAST-SELF EXAMINATION



The above bar chart presents the responses of 120 participants reflecting the main barriers to performing breast-self examination (BSE). The results shows that:

- 99 participants (82.5%) lack knowledge on how to perform BSE, making it the most significant barrier.
- 62 participants (51.7%) do not see BSE as important which highlights the need for increased awareness.
- 57 participants (47.5%) had fear of finding a lump which discourages individuals from performing self-examinations.
- 53 participants (44.2%) do not perform BSE due to lack of time which indicates the need for promoting quick and simple BSE techniques.

HOW CONFIDENT ARE YOU IN PERFORMING BREAST-SELF EXAMINATION

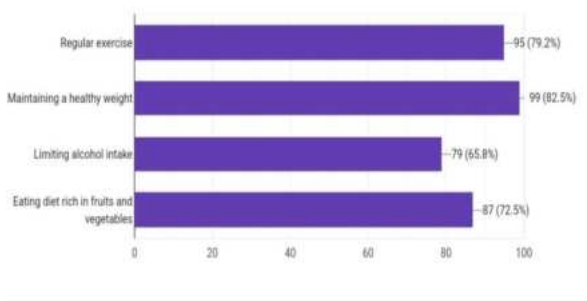
The study presents the responses of 120 participants regarding their confidence in performing breast-self examination (BSE). The results shows that:

- 53 participants (44.2%) feel very confident in performing BSE which shows that more than half of participants may lack complete confidence in their ability to self-examine.
- 56 participants (46.7%) are somewhat confident, which suggests that they may require additional training.
- 11 participants (9.2%) are not confident at all.

LIFESTYLE FACTORS THAT CAN REDUCE THE BREAST CANCER RISK

The above bar chart presents the responses of 120 participants regarding lifestyle factors that can reduce breast cancer risk. The results shows that:

- 99 participants (82.5%) believe that maintaining a healthy weight as the most recognized factor which shows the awareness of its importance in reducing cancer risk.
- 95 participants (79.2%) believe that regular exercise can reduce breast cancer risk.



- 87 participants (72.5%) believe that eating a diet rich in fruits and vegetables can reduce breast cancer risk.
- 79 participants (65.8%) believe that limiting alcohol intake can reduce breast cancer risk. This factor shows the lowest recognition.

HAVE YOU EVER UNDERGONE A CLINICAL BREAST EXAMINATION?

The study presents responses of 120 participants regarding whether they have undergone a clinical breast examination. The results shows that:

- 42 participants (35%) have undergone clinical breast examination which shows a low participation rate in professional breast screening methods.
- Majority 78 participants (65%) have never had a clinical breast examination that suggests a potential gap in awareness of breast health check ups.

WOULD YOU ENCOURAGE OTHERS TO PERFORM REGULAR BREAST SCREENINGS?

The study presents the responses of 120 participants regarding whether they would encourage others to perform regular breast screenings. The results shows that:

- Majority 115 participants (95.8%) support encouraging regular breast screenings indicating strong awareness of importance of early detection.
- Only 5 participants (4.2%) would not encourage others may be due to lack of knowledge or misconceptions about screening.

DO YOU THINK BREAST CANCER AWARENESS CAMPAIGNS ARE SUFFICIENT IN OUR COUNTRY?

The study presents the responses of 120 participants regarding whether breast cancer awareness campaigns in their country. The results shows that:

- A majority of 102 participants (85%) believe that breast cancer awareness campaigns are insufficient in our country.
- Only 18 participants (15%) consider that present campaigns are sufficient in our country.

DO YOU BELIEVE THERE IS STIGMA ASSOCIATED WITH DISCUSSING BREAST CANCER OPENLY?

The Study presents responses from 120 participants related to the above question and the results shows that:

- A significant majority of 97 participants (80.8%) believe there is stigma which shows that discussing breast cancer remains a sensitive or taboo topic in society.
- Only 23 participants (19.2%) think there is no stigma which indicates that open conversations about breast cancers are still limited.

DO YOU BELIEVE EARLY DETECTION IMPROVES SURVIVAL RATE?

The study presents responses from 120 participants regarding above question. The results shows that:

- A vast majority of 118 participants (98.3%) believe that early detection improves survival rates which shows that strong awareness of breast cancer outcomes.
- Only 2 participants (1.7%) disagree to this probably due to lack of knowledge.

DISCUSSION

Breast cancer is the most common malignancy among women worldwide, making early detection and awareness crucial in reducing morbidity and mortality. Medical students, particularly MBBS female medical students play a vital role in spreading awareness and promoting preventive measures. This discussion evaluates the awareness, perceptions and knowledge gaps regarding breast cancer among female MBBS students at KIMS & RF based on survey findings.

LEVEL OF AWARENESS AND SCREENING PRACTICES:

- The survey results indicates a high level of awareness among female medical students regarding breast cancer risk factors, early detection methods and preventive measures. A significant majority (98.3%) recognized that early detection improves survival rates, demonstrating their understanding of the importance of screening techniques.
- However 65% of students reported never undergoing a clinical breast examination themselves, which highlights a gap between knowledge and practice. This shows that while students are aware of importance of screening, personal adherence remains an area of concern.

PERCEPTION OF PREVENTIVE MEASURES:

Students were well aware of lifestyle changes that reduce breast cancer risk -

82.5% agreed that maintaining a healthy weight is important.
79.2% recognized regular exercise as a protective factor.
72.5% understood the role of diet rich in fruits and vegetables.
65.8% understood the impact of limiting alcohol intake.

These results show good theoretical awareness of risk reduction strategies. However, further assessment is required to determine whether these students apply these practices into their daily lives.

ROLE OF STIGMA AND AWARENESS CAMPAIGNS:

A major concern is the stigma around discussing breast cancer and 80.8% of students believed there is stigma about discussing this topic openly, which could impact patient education and community outreach. 85% students felt that current breast cancer awareness campaigns in the country are insufficient, suggesting a need for enhanced education initiatives and community based interventions. 95.8% of students expressed willingness to encourage others to undergo regular screenings.

NEED FOR PRACTICAL TRAINING:

Although students know about breast cancer, they need more hands-on training to apply their knowledge effectively. To improve awareness and action, medical colleges should provide workshops on breast self-examination and clinical breast examination and should include breast cancer education in medical training.

CONCLUSION

Female MBBS students at KIMS & RF have good knowledge of breast cancer but lack personal screening practices. They recognize the need for better awareness campaigns and can play a key role in educating others. By improving practical training and addressing stigma, these future doctors can help promote early detection and prevention.

REFERENCES

1. Bener, A., & Al-Suwaidi, J. (2017). Awareness of breast cancer and its risk factors among medical students in Qatar. *Asian Pacific Journal of Cancer Prevention*, 18(11), 2949-2955.
2. This study discusses the awareness of breast cancer and its risk factors among medical students in Qatar. It highlights the role of medical education in improving awareness.
3. Alqarni, A., & Alahmari, M. (2020). Knowledge and awareness of breast cancer among female medical students in a Saudi University. *Journal of Cancer Education*, 35(4), 689-695.
4. This research examines the level of knowledge and awareness of breast

- cancer among female medical students in saudi arabia.
5. Sharma, R., & Kaur, M. (2016). Breast Cancer awareness among medical students in a northern Indian medical college: A cross-sectional study. *Indian Journal of Medical Sciences*, 68(2), 33-38.
 6. This study surveys medical students in northern India, assessing their awareness of breast cancer, its risk factors, and screening practices.
 7. Singh, H., & Kumari, R. (2019). Breast cancer awareness and knowledge of its prevention among medical students. *International Journal of Research in Medical Sciences*, 7(4), 1040-1044.
 8. The article discusses the awareness and knowledge regarding breast cancer prevention among medical students, focusing on understanding preventive measures and early detection.
 9. Khader, Y., & Al-Batayneh, O. (2017). Breast cancer awareness among female medical students in Jordan. *International Journal of breast cancer*, 2017, Article ID 4740891.