

Knowledge, Attitude and Practice Towards Breast Self-Examination Among Non-Medical Female Students: An Observational Study

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Abstract: *This study examined the knowledge, attitude, and practice regarding breast self-examination (BSE) among non-medical female students. Results revealed that a significant portion had fair knowledge (74%) and a smaller percentage had good knowledge (22.50%), while a minority had no knowledge (3.50%). In terms of attitude, the majority exhibited poor attitudes (81.50%), with a minority displaying reasonable attitudes (18.50%). Practice outcomes indicated that the vast majority of students had poor practice (99%), whereas only a small fraction demonstrated good practice (1%). These findings underscore the need for targeted educational interventions to improve knowledge, attitudes, and practices regarding BSE among this demographic.*

Keywords: Breast self-examination (BSE), Knowledge, Attitude, Practice, Breast Health, Health Promotion, Early Detection, Awareness Programs

1. Introduction

Breast cancer holds the unfortunate distinction of being the most prevalent cancer and the second leading cause of cancer-related fatalities among women on a global scale. [1]

With being the most common type of cancer in women, breast cancer accounts for 14% of cancer in Indian women. [2]

The incidence of breast cancer is increasing in both rural and urban areas of India. [2]

A study conducted revealed that the delayed diagnosis of breast cancer emerges as the primary factor contributing to lower survival rates among women. [2]

Breast cancer is a type of cancer strongly associated with obesity, whereby a sedentary lifestyle and lack of physical activity serve as known risk factors for its development. [3]

The low survival rates of breast cancer in India can be attributed to delayed detection and diagnosis. [2]

Timely detection of breast cancer is important to reduce its related deaths. Hence, high awareness of its symptoms and risk factors is required. [2]

The five-year survival rate for breast cancer stands at 85% when detected early, while it decreases to 56% in cases where detection occurs at a later stage. [2]

American Cancer Society guidelines suggest some measures for early detection of breast cancer like BSE for girls starting their twenties, clinical breast examination every three years for women in their twenties and thirties, and early mammography every year for women age 40 and above.[4]

Breast self-examination could be performed as an effective way for early detection as it is simple, inexpensive, and more importantly can be carried out by women themselves. [4]

Breast self-examination is an early detection strategy for breast cancer. So, women should perform it regularly. So high knowledge about breast self-examination is required.[4]

2. Literature Survey

In 2022, Sasmita Nayak, Nibedita Mohanty, Prativa Ray, and Minati Das conducted a cross-sectional study in Odisha, aiming to evaluate the knowledge, attitude, and practice of breast self-examination among rural women. The study's purpose was to assess awareness of breast cancer and identify knowledge regarding self-examination among these women. Data collection involved interviews utilizing a semi-structured questionnaire. The study's findings revealed that a majority of the women were cognizant of breast cancer, but only 26% of them were aware of breast self-examination.

According to a study conducted by Amal K Suleiman in 2016, it was found that the level of awareness and attitudes regarding breast cancer and breast self-examination among female Jordanian students were inadequate. The study concluded that the current state of awareness concerning breast cancer among Jordanian students and their utilization of breast self-examination fell short of the desired standards.

According to a study conducted by breastcancerindia.net, the statistics of breast cancer in India reveal a concerning reality. The study concluded that the survival rate for breast cancer in India is notably low, primarily due to late detection.

Jongin Lee, JaeYong Lee, Dong-Wook Lee, Hyoung-Ryoul Kim and Mo-Yeol Kang conducted research on Sedentary work and Breast cancer risk: A systematic review and meta-analysis. The findings derived from this meta-analysis indicate that sedentary behavior in the workplace is linked to a 15.5% elevated risk of developing breast cancer. As a crucial preventive measure, it becomes imperative to minimize sedentary time during work hours and prioritize leisure-time physical activity for individuals engaged in sedentary occupations.

Li-Yuan Liu, Fei Wang, Li-Xiang Yu, Zhong-Bing Ma, Qiang Zhang, De-Zong Gao, Yu-Yang Li, Liang Li, Zhong-Tang Zhao and Zhi-Gang Yu conducted research on Breast cancer awareness among women in Eastern China: a cross-sectional study. According to this study, it was found that while most participants were aware of breast cancer as a disease, their knowledge and comprehension of the condition were significantly lacking. In light of the escalating incidence of breast cancer there is an immediate and pressing need for a comprehensive breast cancer awareness and education initiative, particularly targeting women aged 35 years and older.

Ahmad Ayed* Faeda Eqtaib Lubna Harazneh Imad Fashafsheh Sewar Nazzal Bian Talahmeh Deena Hajar Rrawan Awawdeh Nursing Department, Arab American University, Palestine studied Breast Self-Examination in Terms of Knowledge, Attitude, and Practice among Nursing Students of Arab American University/ Jenin then concluded that although there was lack of knowledge about BSE yet, the positive attitude towards BSE was encouraging. Most female nursing students in our sample did not perform BSE. This might be an obstacle to screening programs and early diagnosis of breast cancer. Therefore, more intensified awareness programs among nursing university students are necessary to keep in view their current status of breast cancer and BSE knowledge. Also, further researches are needed to identify the causes of inadequate knowledge and practice of BSE among students in Arab American universities. More utilization of Media as an important source of breast self-exam is important to improve awareness among the: are equipped with the knowledge and resources necessary to combat breast cancer effectively, ultimately improving outcomes and saving lives.

Dolar Doshi, B Shrikant Reddy, Suhas Kulkarni, and P Karunakar conducted research on - Breast Self - examination: Knowledge, Attitude, and Practice among female Dental Students in Hyderabad City, India. this study underscores the critical necessity of educational initiatives aimed at fostering awareness about reg Thisular breast cancer screening practices. By emphasizing the importance of proactive screening behavior, such programs can empower individuals to take charge of their health and seek timely screenings. Through targeted education, communities can be equipped with the knowledge and resources needed to prioritize early detection, ultimately improving outcomes and reducing the burden of Breast Cancer.

3. Method

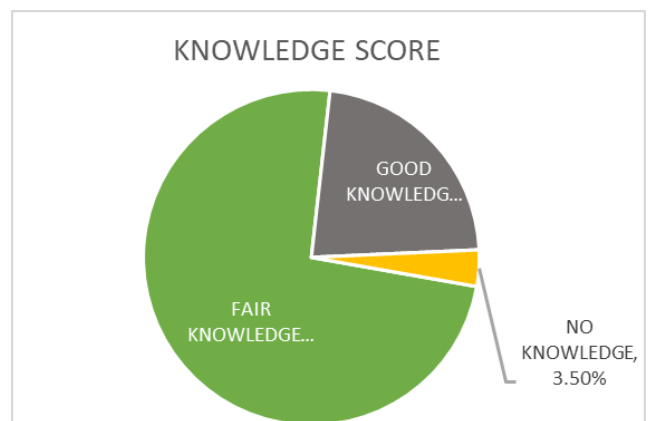
The study began with a presentation to the ethical committee of P.E.S Modern College of Physiotherapy, Pune 05 The study began after obtaining ethical clearance from the committee. The participants were selected according to inclusion and exclusion criteria. The participants were explained about the questionnaire. The purpose was explained to the participants, and written consent was taken. Data was collected, and data was analyzed.

4. Results / Discussion

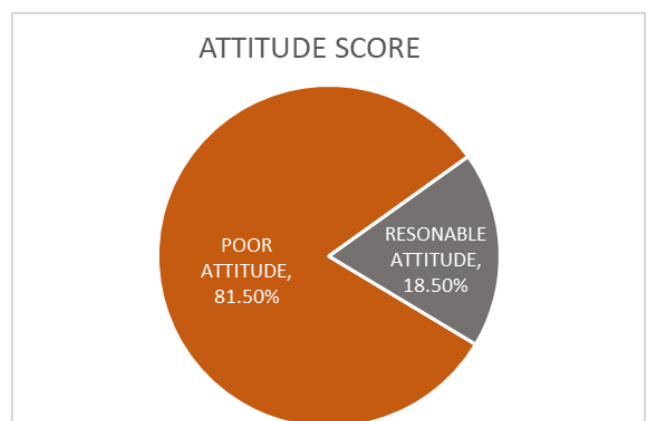
Result:

- A total of 200 paper-form responses were recorded.
- 200 subjects included in the study according to inclusion criteria
- The mean age of the participants is 24.93 and the standard deviation is 2.06
- The mean knowledge score of the participants is 21.33 and the standard deviation is 4.23
- 74% of participants have fair knowledge whereas 22.50% of participants have good and 3.50% have no knowledge
- The mean attitude score of the participants is 23.97 and the standard deviation is 6.14
- 81.50% of participants have poor attitudes whereas 18.50% of participants have reasonable attitude
- The mean practice score of the participants is 11.47 and the standard deviation is 3.13.
- 99% of participants have poor practice whereas 1% of participants have good practice.

Knowledge	Percentages
Fair Knowledge	74.00%
Good Knowledge	22.50%
No Knowledge	3.50%



Attitude	Percentages
Poor Attitude	81.50%
Reasonable Attitude	18.50%



Practice	Percentages
Good Practice	1.00%
Poor Practice	99.00%



5. Discussion

- This study aimed to evaluate the knowledge, attitude, and practice towards breast self-examination among non-medical female students Using the KAP breast self-examination questionnaire.
- There's a notable variation in knowledge about BSE, likely due to differences in educational programs and the effectiveness of awareness campaigns.^[8]
- In India, differences in educational efforts and awareness campaigns about BSE contribute to varying levels of knowledge among students.^[9]
- Myths and misconceptions about breast health, influenced by social norms and limited health education, also affect knowledge levels significantly.^{[6][10]}
- Many non-medical female students exhibit negative attitudes towards breast self-examination (BSE) due to factors such as fear, embarrassment, and cultural beliefs.^{[10][11]}
- Fear often stems from the apprehension of finding something abnormal during the examination, leading to anxiety about potential health implications.^[11]
- Embarrassment arises from societal norms surrounding discussions of intimate body parts, making it uncomfortable for individuals to engage in BSE openly.^[11]
- Additionally, cultural beliefs may perpetuate taboos around discussions of breast health and preventive measures, further deterring individuals from adopting positive attitudes towards BSE.^[11]
- These psychosocial barriers contribute to the reluctance of many students to embrace BSE as a proactive measure for breast health.^{[10][11]}
- Many students struggle to turn their knowledge into action because they face different obstacles.^[11]
- One common barrier is low confidence. Some students feel unsure about their abilities and worry about making mistakes. This fear can hold them back from practicing regularly.^[11]
- Another obstacle is inconvenience. With busy schedules and other commitments, finding time to practice can be tough.
- Despite fair knowledge, there's a large gap in the actual practice of BSE.

- Barriers such as lack of self-efficacy, perceived inconvenience, and structural issues like limited healthcare access hinder the translation of knowledge into regular practice.^{[10][11]}
- Overcoming these challenges requires a comprehensive strategy that includes enhancing self-efficacy, fostering supportive social norms, and improving healthcare access.
- Collaborative efforts among educational bodies, healthcare providers, and community organizations are crucial.^{[8][9]}
- Interventions must be tailored to the sociocultural context of the target population, ensuring that they resonate with the student's values and beliefs.^{[8][9]}
- Utilizing insights from previous research to implement proven strategies can help in cultivating proactive breast health practices.^{[8][9]}

6. Conclusion

The study indicates that while a majority of non-medical female students possess fair to good knowledge of breast self-examination, there is a prevalent negative attitude towards it. Furthermore, the vast majority exhibit poor practices in conducting self-examinations.

7. Future Scope

Conducting a study on the impact of technology, such as mobile applications or online platforms, on promoting awareness of and adherence to breast self-examination among non-medical female students.

Assessing the effectiveness of various educational approaches or interventions in enhancing breast self-examination behaviors among nonmedical female students.

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