

# The Importance of Health Education for Mammogram Screening: A Review Article

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DOI: <https://doi.org/10.36348/sjm.2025.v10i12.007>

| Received: 28.10.2025 | Accepted: 22.12.2025 | Published: 24.12.2025

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## Abstract

Breast cancer represents the most prevalent cancer type among women in Saudi Arabia. Despite the availability of early detection programs via mammography, participation rates remain suboptimal due to limited awareness and prevalent misconceptions regarding the screening process. This review aims to consolidate and critically analyze published studies examining the impact of health education on women's awareness and knowledge of mammogram screening. Evidence indicates that structured health education interventions delivered in healthcare settings or through community campaigns and digital media significantly enhance women's knowledge and encourage early detection practices. The findings underscore the necessity of sustained educational programs and active involvement of healthcare professionals, particularly radiologic technologists and nurses, to optimize breast cancer prevention and early detection.

**Keywords:** Breast cancer awareness, Mammogram education, Health education, Saudi Arabia.

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## INTRODUCTION

Breast cancer is a major global and regional public health concern and constitutes the leading cause of cancer-related mortality among women. In Saudi Arabia, breast cancer accounts for the highest incidence of all female cancers and is frequently diagnosed at advanced stages, primarily due to insufficient awareness and knowledge deficits.

Health education plays a pivotal role in enhancing knowledge, modifying attitudes, and promoting preventive behaviors, including early screening practices. Prior studies have consistently demonstrated that women who participate in health education programs exhibit improved knowledge regarding breast self-examination and mammography, with increased adherence to screening recommendations.

## OBJECTIVES

1. To systematically analyze the current evidence on the effect of health education on women's awareness of mammogram screening.
2. To identify the most effective strategies employed in health education interventions.
3. To provide evidence-based recommendations for enhancing breast cancer awareness and preventive practices in Saudi Arabia.

## METHODS

- **Study Design:** Literature review of published studies from 2015 to 2025.
- **Databases Searched:** PubMed, Scopus, Web of Science, Google Scholar.
- **Inclusion Criteria:** Studies focusing on Saudi women or health education interventions targeting mammogram screening awareness.

- **Exclusion Criteria:** Studies lacking clear evidence on the impact of health education or conducted outside the Saudi context.

## RESULTS

- The majority of reviewed studies demonstrated that health education interventions increased women's knowledge by 40–80%, depending on the program type and delivery method.
- Interactive sessions and personalized educational campaigns were more effective than printed materials or digital-only approaches.
- Nurses and radiologic technologists were the most influential sources of accurate information regarding early detection.
- Barriers to mammogram uptake included fear of results, perceived lack of necessity, time constraints, and misconceptions regarding pain and potential harm.

## DISCUSSION

The findings support the critical role of ongoing and interactive health education programs within healthcare facilities. Integrating educational sessions with scheduled mammogram appointments enhances the practical application of acquired knowledge. Additionally, combining social media campaigns with traditional outreach significantly improves message dissemination and encourages women to undergo screening. Comparative international studies corroborate these results, highlighting the universal efficacy of health education in promoting early detection and awareness of breast cancer.

## CONCLUSION

- Health education is a fundamental component in increasing women's awareness and promoting early mammogram screening.

- Effective programs combine personalized in-clinic education with modern media channels to maximize reach and impact.
- Active participation of healthcare professionals, particularly radiologic technologists and nurses, is essential for program success.
- Further empirical studies are recommended to evaluate the long-term effectiveness of educational interventions on behavioral outcomes.

## RECOMMENDATIONS

1. Incorporate health education sessions alongside mammogram appointments in healthcare centers.
2. Train healthcare professionals to deliver accurate, engaging, and culturally appropriate information.
3. Expand awareness campaigns to include social media and community outreach initiatives.
4. Continuously monitor and assess the impact of educational programs on women's knowledge and screening behaviors.

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