



OPEN Breast cancer awareness and its predictors among university students and employees in Asir region, Saudi Arabia: a cross-sectional study

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Breast cancer (BC) is the most common cancer and the leading cause of cancer-related deaths in Saudi Arabia. However, this malignancy can be tackled effectively with early detection, resulting in better patient outcomes and reduced mortality rates. Breast screening, whether self-screening or clinical screening, plays a pivotal role in early BC detection. Hence, understanding, knowledge, and perception of BC and its risk factors are very important in early BC diagnosis. The current study has been conducted to assess the understanding, knowledge, perception, and attitude of educated population of Asir region towards BC and its risk factors. The study was conducted among the participants aged 18 or above in various institutions of the Asir region in KSA using an online pre-validated questionnaire to assess the understanding, knowledge, and perception of BC and its risk factors. The study was completed by a total of 979 participants. The proportion of participants who demonstrated adequate knowledge and positive perception regarding the role of breast self-examination and early detection was greater than 50%, indicating an overall satisfactory level of breast cancer awareness among the study population. However, in identifying the risk factors of BC, < 50% of participants correctly identified the 8 correct risk factors out of 12. When analyzing the association of BC awareness with demographic characteristics, the results revealed that females had 2.012 times higher odds of BC awareness than males. Additionally, participants with higher education qualifications had 3.867 times higher odds of BC awareness than those with bachelor's degrees. Also, the results show that demographic factors like female sex, age, marital status, urban residence, occupation (administrative staff), and higher education level were associated with the level of knowledge about breast cancer risk factors. Participants demonstrated generally good knowledge and perception of breast cancer, particularly regarding early detection and available screening tools. However, awareness of breast cancer risk factors was notably limited. Therefore, there is a clear need for targeted and region-specific awareness programs to enhance understanding and promote early intervention.

Keywords Breast cancer, Risk factors, Breast self examination (BSE), Clinical breast examination (CBE), Mammography

In 2020, breast cancer overtook lung cancer as the most commonly diagnosed cancer worldwide. It ranks as the fifth leading cause of cancer-related deaths, with approximately 2.3 million new cases accounting for 11.7

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