Original Research Article

Assessment of breast cancer awareness campaigns on the practice of breast self-examination: A survey of Imo State University undergraduates

Abstract

Over the years, breast cancer has been considered a problem of industrialised countries, but current research has shown that is not the case. Examining BSE awareness and knowledge among undergraduates at Imo State University is the goal of this study. In order to support the study's findings, a number of empirical investigations were examined. The health belief model served as the foundation of this study. Survey research design was used in this study. The Wimmer and Dominick online sample size calculator was used to calculate a sample size of 378 based on an expected population of 21,000 pupils. The results of this survey showed that IMSU students have a high level of awareness of breast cancer. Additional result also showed that undergraduate students have a high level of knowledge regarding breast self examination. It was recommended that, encouraging breast self-examination will improve early identification of breast cancer and lower the death rate to the absolute minimum. The government and health organisations are advised to launch more effective programmes on how to prevent BSE in public spaces like schools.

Keywords: Breast cancer, breast self-examination, undergraduates, knowledge

Introduction

Breast cancer is now the most frequent disease in both men and women worldwide, accounting for 12.3% of all malignancies and 23% of cancers in women (National Breast Cancer Coalition, 2011). According to Eleanor and Robyn (2019), although it has long been assumed that this illness only affects people in developed nations, it has recently been shown that this is untrue given that 58% of breast cancer fatalities and 50% of new cases are found in less developed nations. Since most patients present to hospitals when little or no treatment is available, the attitude towards managing breast cancer in Africa is relatively low. According to Opoku, Benwell, and Yarney (2012), screening techniques such breast self examination (BSE), clinical breast examination (CBE), and mammography are frequently used for the early diagnosis of breast cancer. The mortality, morbidity, and expense of treating the disease have all been shown to decrease with early breast cancer diagnosis. But because there aren't many professionals and there aren't many sophisticated diagnostic tools available in developing nations, encouraging routine BSE has been

suggested as a workable screening alternative for breast cancer. However, its application is reliant on women's attitudes and information regarding BSE and breast cancer. According to GLOBOCAN (2018), women should perform a monthly breast self-examination between days 7 and 10 of their menstrual cycle. The article continued by stating that approximately 80% of breast cancers missed by mammography are found by women themselves, most frequently as a result of daily activities like washing and dressing rather than as part of a systematic, routine self-examination. BSE is regarded as an effective breast cancer screening tool when used in conjunction with CBE and mammography. Additionally, it can be used to raise women's awareness of breast cancer. BSE is advised since it is low-cost, personal, painless, simple, safe, and needs no specialised equipment. Additionally, it has been demonstrated to raise breast health awareness, potentially enabling the early diagnosis of breast irregularities.

Ntakim, Oluwasanu, and Odukoya (2022) claim that the persistently high breast cancer mortality rate in Nigeria is caused by a lack of population awareness, poor health seeking behaviour, low levels of female education and empowerment, as well as a deficient healthcare system that results in subpar treatment services. According to Jedy-Agba (2016), a significant contributing factor to a poor prognosis for breast cancer is the stage of diagnosis. One of the main factors affecting breast cancer survival is stage at diagnosis. A better prognosis is linked to early stage disease than late stage disease. The dramatic drops in breast cancer mortality rates over the past 20 years are mostly attributable to earlier diagnosis and therapy advancements (Copson, Maishman, & Gerty, 2014).

According to Harbeck, Gnant, and Thomssen, there hasn't been much progress in the treatment of breast cancer in women of this age range throughout time. To help design a plan for delivering appropriate care targeted at this population to increase survival, it is necessary to estimate the proportion of AYA diagnosed with breast cancer in the nation (2015).

This assumption served as the foundation for the researchers' investigation of undergraduates at Imo State University's awareness and knowledge of breast-self examination.

Research Questions

The following research questions were raised to guide the study; 1. To what extents are undergraduates of Imo State University awareness of breast cancer? 2. What is the knowledge level of Imo state university undergraduates on breast-self examination? 3. What is the attitude of undergraduates of Imo state University towards breast-self examination?

LITERATURE REVIEW

Breast Cancer

Breast tissue can develop into cancer, which is the simplest definition of breast cancer. Breast lumps, altered breast shape, dimpling of the skin, milk rejection, fluid emerging from the nipple, an inverted nipple, or a red or scaly patch of skin can all be indicators of breast cancer. There may be bone discomfort, enlarged lymph nodes, shortness of breath, or yellow skin in people with distant illness dissemination (Gtzsche & Jrgensen, 2013).

The debate about the relative merits and drawbacks of breast cancer screening has persisted over time. Given that a significant fraction of women who test positive for the disease turn out not to have cancer, a 2013 Cochrane review concluded that it was unclear whether mammographic screening causes more harm than good. When a person is at a high risk of developing breast cancer, the drugs raloxifene or tamoxifen may be administered to try to prevent it. Another preventive measure is the surgical removal of both breasts in select high risk women. Cancer patients may undergo a variety of treatments, such as surgery, radiation therapy, chemotherapy, hormone therapy, and targeted therapy. Breast-conserving surgery and mastectomy are two different types of surgery. During surgery or afterward, breast reconstruction is an option. Treatments for those whose cancer has spread to other bodily regions mostly focus on enhancing comfort and quality of life (Nelson, 2009).

The type of breast cancer, the severity of the condition, and the patient's age all affect the outcome. Between 80 and 90 percent of people survive five years in England and the United States. The five-year survival rates are lower in poorer nations. With 25% of all occurrences, breast cancer is the most common type of cancer among women worldwide. There were 2 million new cases and 627,000 fatalities as a result of 2018. It is more prevalent in industrialised nations and affects women over 100 times more frequently than it does men.

According to the Miller, Wilson, Chapman, Flight, Nguyen, Fletcher, and Ramsey, (2018), the most common types are: Ductal Carcinoma in situ (DCIS)**:**, Invasive Breast Cancer (IDC/ILC)**,** Triple-negative Breast Cancer, Inflammatory Breast Cancer (IBC)**,** Paget disease of the Breast, Angiosarcoma of the Breast**:** Phyllodes Tumor.

Breast Self Examination

Nelson (2009) identifies breast self-examination (BSE) as a screening technique performed in an effort to find breast cancer early on. The woman herself examines and feels each breast to check for any potential lumps, deformities, or swelling. Every month, women should self-examine their breasts for any changes. You may preserve breast health and spot cancer early, when it is simpler to treat and more likely to be cured, by getting regular breast exams. Although most bumps and anomalies are not cancer, you should still tell your doctor if anything has changed. Women can check their breasts step-by-step with a breast self-exam. You can detect anything that seems out of the ordinary by routinely inspecting and feeling your breasts.

Large randomised controlled studies indicated that BSE was not beneficial in preventing death and actually caused injury through unnecessary biopsies, surgery, and anxiety. BSE was formerly highly touted as a way to discover cancer at a more curable stage. BSE is discouraged by the World Health Organisation and other organisations. According to Saran, Sandhiya, Yogashkumar, Vignash, and

Manjula (2020), other organisations have a neutral approach and make no recommendations for or against BSE.

Breast self-examination, or regularly inspecting your own breasts, can be a useful strategy to find breast cancer early, when it is more likely to be successfully treated. Even though no single test can detect all breast cancers early, many individuals believe that performing a breast self-exam in addition to other screening methods increases the likelihood of an early diagnosis.

As part of your overall breast cancer screening approach, you can utilise a straightforward, free tool called a breast self-exam once a month at any age (Ahern, Sprague, Bissell, Miglioretti, Buist, Braithwaite, and Kerlikowske, 2017). You can find changes, such as lumps or patches that feel different in your breasts, that could be indicators of an infection or breast cancer by performing monthly self-exams. Early detection of breast cancer greatly improves survival rates. Examining oneself is crucial for breast health. However, they shouldn't take the place of the examinations and screening tests (like mammograms) advised by doctors. You ought to continue visiting your gynaecologist and/or primary care physician frequently.

Methods of Breast Self Examination

According to International Agency for Research on Cancer, (2018). The most appropriate method of engaging breast self-examination are as follows;

Visual inspection: Remove your shirt and bra and position yourself in front of a mirror. Your arms should be at your sides. Keep an eye out for any changes to the nipples, dimpling in the skin, breast swelling, or breast shape. Next, extend your arms wide in front of you while searching for the same things. Finally, press forcefully with your hands on your hips to get your chest muscles to contract. Recheck for the same modifications. Pay close attention to both breasts.

Manual inspection while standing up: With your shirt and bra off, examine your left breast with your right hand, then your right breast. Press on each area of one breast using the pads of your three middle fingers. Apply gentle pressure first, then medium, and finally firm. Check your body for any lumps, thick areas, or other changes. You may ensure that you hit every target by using a circular pattern. Next, firmly press the tissue against the arm. Before gently squeezing the nipple to check for discharge, make sure to look under the areola. On the other side of your body, repeat the procedures.

Manual inspection while lying down: Your breast tissue distributes more evenly while you're lying down. So if your breasts are big, this is an excellent posture to feel for changes. Place a pillow beneath your right shoulder when lying down. your right arm should be behind your head. Apply the same method as in step 2 with your left hand, pressing all areas of the breast tissue and under your arm with the pads of your fingers. Last but not least, flip the pillow to the opposite side and examine the opposite breast and armpit. To check for discharge, gently squeeze the nipple after checking under the areola.

Empirical Review

A study conducted in Gondar Town, Northwest Ethiopia in 2022 by Kibret, Yeneabat, and Zerko aimed to evaluate women's knowledge, attitudes, and practises on breast self-examination and related factors. The results of this study had significant implications for women's limited information, adverse attitudes, and poor practises regarding breast self-examination. As a result of the study, it was recommended that comprehensive, systematic, and ongoing BSE educational programmes be implemented, along with a breast cancer awareness campaign, with a focus on improving women's knowledge, attitudes, and practises in this area.

The study of Samira, Mohamed, Karim, and Yasser's (2021), on breast cancer knowledge and practise of breast self-examination among female University Students in Gaza, assessed the level of BSE knowledge and practise among female university students. The study's results showed that there were low knowledge scores (70%) in the areas of general information of breast cancer disease, early detection and

management techniques, and applying BSE practise activities. Further research showed that while 69.8% of students knew when to perform BSE and that all students (96.5%) had heard of it, only 31.4% actually practised it on a regular basis. Findings also showed a statistically significant association between practising regularly and knowing the instructions for using the BSE. This study suggested that a training programme be created to raise knowledge of breast cancer and actual BSE practise.

Another study, conducted by Muhabaw, Temesgen, Abera, Emebet, Solomon, Mosina, Tejitu, and Genet in (2021) examined the knowledge and behaviour of female summer social science students at the Maraki Campus of the University of Gondar, Ethiopia, regarding breast self-examination and its contributing factors. According to the study's findings, the percentage of students who regularly perform breast self-examination was determined to be 27.6% (95% CI: 22.9, 32) and 17.4% (95% CI: 13.8, 21.6). In the multivariable logistic regression analysis, urban residency (95% CI: 1.27, 4.94) and discussion with someone about breast self-examination (95% CI: 2.42, 8.65) were predictors of good knowledge, whereas breast self-examination practise (95% CI: 5.97, 24.20) had been significantly correlated with family history of breast cancer (95% CI: 1.75, 25), discussion with someone about breast self-examination (95% CI: 1.82, 8. According to the study's findings, fewer students than most previous research had good understanding and practise of breast self-examination. The study suggested that raising knowledge about breast self-examination might be beneficial in this situation.

Mikiyas, Mesfin, Kenean, and Abel's study (2022) sought to determine how well-informed female students at Ethiopia's Addis Ababa University were regarding breast self-examination and the elements that are related to it. The study's findings showed that 49.9% of respondents had solid understanding of breast self-examination. Previously, urban residents were approximately twice as likely as rural residents to have solid understanding of BSE (AOR =2.16, 95% CI (1.18-39.91), p =0.011). Less than half of the students who participated in the survey had a strong understanding of breast self-examination, according to the study's findings. This warrants educating female pupils about breast self-examination. Sarker, Islam, Moonajilin, Rahman, Gesesew, and Ward conducted a study in (2022) titled

knowledge of breast cancer and breast self-examination practises and its barriers among University female students in Bangladesh. The study's findings showed that breast self-examination practises and understanding about breast cancer are both poor. The study found a need for socially, culturally, and demographically suitable educational intervention programmes aiming at raising awareness of breast cancer and encouraging the practise of breast self-examination in Bangladesh. The study suggested that media campaigns and other trustworthy channels be used to promote breast cancer awareness and breast self-examination.

Doshi, Srikant, Suhas, and Karunakar (2012) study aimed to evaluate a cohort of Indian female dental students' knowledge, attitudes, and practises regarding breast self-examination (BSE). The study's conclusions showed that there is a high degree of understanding about animal self-examination and that students have a positive attitude towards BSE practise. The study's conclusion emphasised the necessity for educational initiatives to raise public knowledge of routine breast cancer screening practises. Therefore, the study recommended that more people be made aware of the value of breast self-examination, as doing so will enable early detection of lumps in the breast region.

Theoretical Framework

The Health Belief Model (HBM) served as the foundation for this investigation. Early in the 1950s, social scientists in the U.S. created the HBM. According to the HBM, a person's likelihood of adopting a behaviour can be predicted by how much they believe they personally risk contracting an illness or disease as well as how much they believe the recommended health behaviour or activity works. Through the HBM the perception and attitude of women and young adolescent adults towards breast self examination is examine. Also, the HBM helps to investigate if the husbands, fathers, uncles and brothers of the women and female youth are knowledgeable of BSE and how they provide guidance and enlightenment to the female gender on BSE. Through the HBM the minds of both male and female gender are organized towards the appreciation of the benefits of breast self examination.

The relevance of this theory to the study is that people will always engage in activities when they are at the benefactor of such process. Thus, undergraduate students will often engage in breast self examination when they realize it is for their benefit.

Methodology

The survey research design was adopted and questionnaire was also distributed to respondents as a tool for data collection. This method enables the researcher to study samples and it makes identification of conditions and phenomena quite easy in their natural setting. According to the registral, Imo state university, the population of students in Imo state university is estimated to be over 21,000 students. To ascertain the sample size of the population, the Wimmer & Dominick online sample size calculator was used to arrive at a population size of 378 with the confidence level at 95% and margin of error at 5%.

The researchers employed multi-stage sampling technique. The multi-stage entails categorizing of sample into stages, thus:

Stage 1: The researcher listed the entire faculty situated in Imo state university; Agriculture and Veterinary Medicine, Business Administration, Education, Engineering, Environmental Sciences, Humanities, Law, Biological Sciences, Physical sciences, Social Sciences, Basic Medical Sciences, Basic Clinical, and Clinical Medicine.

Stage 2: In this stage, the researcher divided the sample size (378) by the number of faculties (14). 378/14=27

Stage 3: At this stage 27 instrument of data collection would be randomly administered to the respondents. This means that each faculty will get 27 copies of the instrument for data collection.

Data Presentation and Analysis

The researcher distributed 378 copies of the questionnaire to the respondents of which 374 copies were returned meanwhile, four (4) copies were not returned.

Table 1: Respondents response on level of awareness of breast cancer.

Option	Frequency	Percentage%
Very high	300	80%
High	67	18%
Moderate	7	2%
Low	0	0
Total	374	100%

Source: field survey, 2023

The analyses of table one above reveals that 80% of undergraduate students in Imo state university have a very high level of awareness of breast cancer.

Table 2: The level of knowledge of Imo state university undergraduates on breast self examination. N=374

Options	SA	A	D	SD	Mean	Remark
Lump in the breast and around the armpit are the signs of breast cancer	170	185	9	10	3.4	Accepted
Lying down on the bed is one of the most appropriate place to perform BSE.	100	200	26	48	2.9	Accepted
Early detection of breast cancer improve chances of	250	74	24	26	3.4	Accepted

survival	
Average mean	3.2

Source: field survey, 2023

Variables: SA= Strongly Agree 3.3-4.0, A= Agree 2.5-3.2, D =Disagree 1.8-2.4, SD= Strongly Disagree 1-1.7.

Decision Rule: the mean value for decision is 2.5. Therefore if the calculated mean is between 1-2.4 the researcher will reject the item posed but if the calculated mean is between 2.5-4.0 the researcher will accept the item.

The analysis of data reveals that an average mean of 3.2(N=374), there is an appreciable level of knowledge on breast self examination. This implies that students of Imo state university have good knowledge of breast self-examination.

Table 3: The attitude of undergraduate students of Imo state university towards breast self examination. . N=374

Options	**SA**	**A**	**D**	**SD**	**Mean**	**Remark**
If there is lump I prefer to get treatments from a health institution	187	93	51	43	3.1	Accepted
Because I am always worried of breast cancer I want to do BSE.	109	215	37	13	3.1	Accepted

Breast self examination is not embarrassing to me.	208	93	73	–	3.5	Accepted
Average					**3.2**	

Source: field survey, 2023

Data of the analyzed table above reveals that an average mean of 3.2(N=374), there is a positive attitude towards breast self examination by undergraduate students of Imo state university. This implies that respondents prefers reporting to a medical center if lump is detected within the breast region

Discussion of Findings

Results of this study show that undergraduate students at Imo State University had a high level of awareness of breast cancer, with an average awareness of 80%. This result is consistent with those of Doshi, Srikanth, Suhas, and Karunakar (2012), who found that students have a positive attitude towards the practise of BSE and have a high degree of understanding of animal self-examination. The study's conclusion emphasised the necessity for educational initiatives to raise public knowledge of routine breast cancer screening practises. The study concluded that in order to continue raising public awareness of breast cancer, additional education about the value of breast self-examination should be promoted.

The data analysis shows that there is a respectable amount of knowledge on breast self examination. This suggests that Imo State University students are well-versed in breast self-examination. Similar results were found by Mikiyas et al. in 2022, who found that respondents had good understanding of breast self-examination. Less than half of the students who participated in the survey had a strong understanding of breast self-examination, according to the study's findings. This warrants educating female pupils about breast self-examination. This result contrasts with that of Sarker et al. (2022), who found that breast self-examination practises and understanding of breast cancer are both low. The study

found a need for socially, culturally, and demographically suitable educational intervention programmes aiming at raising awareness of breast cancer and encouraging the practise of breast self-examination in Bangladesh. The study suggested that media campaigns and other trustworthy channels be used to promote breast cancer awareness and breast self-examination.

The analysis's findings indicate that Imo State University undergraduate students have a favourable attitude towards breast self-examination. This suggests that respondents prefer to notify a medical facility if a lump is seen in the breast area. This result is consistent with that of Samira et al. (2021), who found a statistically significant link between regular practising and awareness of the BSE's application stages. This study suggested that a training programme be put in place to raise awareness of BC and actual BSE usage. This supports the HBM's relevance, which also aims to explain why people are most likely to perform breast self-examination if they are aware of its advantages.

Conclusion and Recommendations

Breast self examination is costless exercise that can be carried out in varieties of ways. Early detection of breast cancer can increase the chances of survival enable proper treatment of the patient. Therefore, it important for undergraduates to be properly aware of the foreseen dangers associated with lack of awareness and knowledge of breast self examination. It is on this ground that the following recommendations are given;

1. Given that that there is a high level of awareness of breast cancer by undergraduate students of Imo state university at an average of 80% various health agencies should harness other platforms to constantly bring to the awareness of the masses the importance of BSE.
2. Findings have shown that there is a significant level of knowledge of breast self examination by respondents therefore, more practical campaigns on various ways to conduct BSE should be encouraged in schools and public places.

3. The positive attitude towards breast self examination by undergraduates of Imo state university is a call for the ministry of health to intensify its campaigns on BSE which will result to more detection of early breast cancer.

Reference

Ahern, T. Sprague, B. Bissell, M. Miglioretti, D. Buist, D. Braithwaite, D. & Kerlikowske, K. (2017). *Family history of breast cancer, breast density, and breast cancer risk in a U.S. breast cancer screening population*. cancer epidemiology biomarkers & prevention. 26(6), pp: 938-944. https://doi.org/10.1158/1055-9965.epi-16-0801

Center for Disease Control and Prevention (2022). Breast cancer: What are the risk the risk of breast cancer? Retrieved from

Copson, E. Maishman T. & Gerty, S. (2014). Ethnicity and outcome of young breast cancer patients in the United Kingdom: the POSH study. *British Journal of Cancer*. 110(1)230-241. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3887284/

Doshi, D. Srikanth R.B. Suhas, K. & Karunakar, K. (2012). Breast self-examination: Knowledge, attitude, and practice among female dental students in Hyderabad City, India. *Indian journal of palliative care*.18(1) 68–73.

Eleanor, B. & Robyn, R. (2019). Improving detection of breast cancer in Sub-Sahara Africa: why monography may not be the way forward. PMC PubMed central. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6325810/

GLOBOCAN, (2018). Estimated cancer incidence, mortality and prevalence worldwide in 2018. International Agency for Research on Cancer. Retrieved from: https://doi.org/10.3322/caac.21492.4

Gøtzsche, P.C. & Jørgensen, K. J. (2013). Screening for breast cancer with mammography. The Cochrane Database of Systematic Reviews. Retrieved from https://doi.org/10.1002/14651858.CD001877.pub5

Harbeck, N. Gnant M. & Thomssen, C. (2015). Breast cancer is our global responsibility. breast care. 10(6):360–360. https://www.cdc.gov/cancer/breast/basic_info/risk_factors.htm

International Agency for Research on Cancer, (2018). *IARC Cancer Tomorrow: Global Cancer Incidence Mortality and Prevalence Developed by IARC*, International Agency for Research on Cancer, Lyon, France. https://gco.iarc.fr/tomorrow/graphicline?type=1&population=900&mode=population&sex=2&cancer=39&age_group=value&apc_male=0&apc_female=0.

Jedy-Agba, E. McCormack, V. Adebamowo, C. & Santos-Silva, I. (2016). Stage at diagnosis of breast cancer in sub-Saharan Africa: a systematic review and meta-analysis. *Lancet Glob Health*. 4(12): 923-935. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5708541/

Kibret, A. Yeneabat, B. & Zerko, W. (2022). Knowledge, attitude, practice towards breast self-examination and associated factors among women in Gondar town, Northwest Ethiopia, 2021: A community-based study. 22(6)174-182

Mikiyas, A.G. Mesfin, A. Kenean, G.T. & Abel, T.G. (2022). Breast self-examination knowledge and its determinants among female students at Addis Ababa University, Ethiopia: An Institution-Based Cross-Sectional Study. *National center for biotechnology information.* https://doi.org/10.1155/2022/2870419

Miller, E. Wilson, C. Chapman, J. Flight, I. Nguyen, A. Fletcher, C. & Ramsey, I. (2018). Connecting the dots between breast cancer, obesity and alcohol consumption in middle-aged women: ecological

and case control studies. BMC Public Health, 18(1). Retrieved from https://doi.org/10.1186/s12889-018-5357-1

Muhabaw, S.M. Temesgen, W.G. Abera, S. A. Emebet, G.T. Solomon, K.A.' Mosina, A.A. Tejitu, D.S. & Genet, W.K. (2021). Knowledge and practice on breast self-examination and associated factors among summer class social science undergraduate female students in the university of Gondar, Northwest Ethiopia. https://doi.org/10.1155/2021/8162047

National Breast Cancer Coalition (2011). Breast Self-Exam: Position Statement. National Breast Cancer Coalition. 2011. Available from: http://www.breastcancerdeadline2020

Nelson, H.D. Tyne, K. Naik, A. Bougatsos, C. Chan, B. Nygren, P. & Humphrey, L. (2009). "Screening for Breast Cancer: Systematic Evidence Review Update for the US Preventive Services Task Force". U.S. Preventive Services Task Force Evidence Syntheses. Rockville, MD: Agency for Healthcare Research and Quality.

Ntakim, A. OLuwasanu, M. & Odukoya, O. (2022). Breast cancer in adolescent and young adults less than 40 years of age in Nigeria: A retrospective analysis. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9355764/

Opoku, S.Y. Benwell, M. & Yarney, J. (2012). Knowledge, attitudes, beliefs, behaviour and breast cancer screening practices in Ghana, West Africa. *Pan Afr Med J.* 11(28):28.

Samira, S.A.B. Mohamed, A. karim, I. & Yasser S.A. (2021). Breast cancer knowledge and practice of breast self-examination among female university students, Gaza. Retrieved from https://doi.org/10.1155/2021/6640324

Saran, C. Sandhiya, S.K. Yogashkumar, S. Vignash, T. & Manjula, J. (2020). Assessment of the knowledge on breast self examination among women in selected tertiary hospital at

Kelembakkam, Kancheepuram district, Tamil Nadu, India. Retrieved from file:///C:/Users/AUSTIN/Downloads/ojsadmin,+44%20(3).pdf

Sarker, R. Islam M.S. Moonajilin, M.S. Rahman, M. Gesesew, H.A. & Ward P.R. (2022). Knowledge of breast cancer and breast self-examination practices and its barriers among university female students in Bangladesh: National center for biotechnology information. 17(6).6-37. https://doi.org/10.1371/journal.pone.0270417

Siu, A. L. (2016). Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement. Annals of Internal Medicine. 164 (4): 279-296.