Volume: 4, Issue: 1
Page: 10-20
YEAR: 2023

ISSN: 2708-4841(Print), 2708-7042 (Online)

Commonwealth Journal of Academic Research (CJAR.EU)

Early Detection and Prevention; The Role of Breast Cancer Screening

AUTHOR(S): ABIODUN, Olukemi Felicia (RN, BNSc.), OHAERI, Beatrice (RN, Ph.D), OJO, Iyanuoluwa O. (RN, Ph.D), BABARIMISA, Oluwatoyin (RN, M.Sc.)

Abstract:

Breast cancer is a life threatening malignancy and common causes of mortality and morbidity worldwide. Globally, breast cancer is mostly diagnosed cancer in women and one of the most common causes of death from cancer. Developing countries have limited healthcare resources and screening is mostly depending on breast awareness programs for their breast cancer screening this is one of the causes of late presentation of breast cancer. Poor awareness of breast cancer, poor perception and health belief among others are part of the factors affecting breast cancer screening. Early detection and prevention of breast cancer cells through breast cancer screening and prompt treatment to reduce mortality of breast cancer needs to increase in other to improve the health of the general population. Government, health workers and Non-governmental organization should help to increase awareness of the general public on the importance of breast cancer screening.

Keywords: Detection, Prevention, Breast Cancer, Screening,

CJAR
Accepted 14 January 2023
Published 19 January 2023
DOI:10.5281/zenodo.7554357

About Author

Author(s): ABIODUN, Olukemi Felicia (RN, BNSc.)
Department of Nursing,
University of Ibadan, Ibadan, Nigeria.

OHAERI, Beatrice (RN, Ph.D)
Department of Nursing,
University of Ibadan, Ibadan, Nigeria.

OJO, Iyanuoluwa O. (RN, Ph.D)
Department of Nursing,
University of Ibadan, Ibadan, Nigeria.
and

BABARIMISA, Oluwatoyin (RN, M.Sc.)
Department of Nursing,
University of Ibadan, Ibadan, Nigeria.

Introduction

Cancer of the breast develops in the tissues of the breast, specifically the lining of the milk ducts or the lobules that secrete milk into the ducts (George, et al. 2019). Reportedly good prognosis and survival rates for breast cancer in the Western world; survival rates in poorer countries are far lower and significantly lower in quality (Ahmadian, 2010; Agbo, et al., 2014). Breast cancer is the leading cause of mortality for Nigerian women, and this trend is expected to continue so long as there is no concerted effort to educate women about the disease and its associated risks.

Breast cancer is the most frequent kind of cancer in the world, making it an ongoing public health problem everywhere it is found. The public's increased focus on the disease and the development of more sensitive mammography techniques have all contributed to better breast cancer detection and screening. The most common cause of death in women, breast cancer is a devastating illness (Akram et al., 2017). Over a million women are diagnosed with breast cancer every year, and over 400,000 people lose their lives to the disease. There is a significant correlation between widespread education, early detection, the disease stage at diagnosis, and survival rates in Canada, according to a comparative integrative assessment of the literature from Nigeria and Canada. Survival rates are quite low due to advanced illness stages at presentation in Nigeria (Ogunkorode et al., 2017).

The rate at which breast cancer is diagnosed varies considerably across geographic areas. Studies have shown that developing nations have a lower breast cancer incidence than industrialised nations, but that developing nations and Sub-Saharan Africa, particularly Nigeria, have a higher death rate and worse outcome survival (Bray, et. al., 2018). Breast cancer should be a priority for health authorities and policy makers due to its high mortality rate, high incidence rate, and high treatment costs. This points to the necessity for a greater emphasis on education on means of early detection within the community (Bray, et. al., 2018). When compared to over 85% in Western Europe and North America, the 5-year survival rate for women with breast cancer is significantly lower (less than 10%) in Nigeria (DeSantis, et al., 2015; Vanderpuye et al., 2017). Finding breast cancer sooner through awareness, screening, and the availability and provision of improved treatment choices is thought to be responsible for the decreased mortality rate found in developed countries (American Cancer Society, 2018).

Concept of Breast Cancer

Malignant tumours, or cancers, form when abnormal cells divide uncontrollably. It's brought on by a localised proliferation of aberrant cells. It's caused by alterations, or mutations, in the genes that normally control cell division and maintenance (Cancer research UK, 2018). While the precise origins of breast cancer remain unknown, research has pointed to DNA damage as a likely contributor (WHO, 2020).

The disease known as breast cancer can be thought of as a tumour that has spread from elsewhere in the body to the breast. It's the rapid multiplication of breast cells. Mutations, or aberrant alterations, in the genes that normally control cell development and maintain cellular health lead to cancer. According to Bray et al. (2018), the nucleus is the "control room" of every cell and is where the genes are kept. Our bodies normally undergo a methodical process of cell renewal. There are many different ways to classify this illness, which affects women more frequently than males.

Breast cancer develops from abnormalities in the breast's cellular DNA. In most cases, breast cancer develops first in the lining of the milk ducts or the lobules that drain milk into the

ducts. Malignant tumours have the potential to metastasize, or spread, to other organs. It typically begins when breast cells multiply uncontrollably. Lobular carcinoma and ductal carcinoma are the two primary subtypes of breast cancer (WHO, 2020). Whenever a mutation in the DNA of a cell causes transformation, the transformed cell produces a clone and begins to proliferate abnormally, despite the presence of growth-regulating signals in its immediate surroundings. As a result of the cell invasion, the affected tissues undergo alterations. Cancer cells invade these tissues and travel through the lymph system and blood vessels to spread throughout the body, a process known as metastasis (Janice & Kerry, 2014).

Breast cancer is a malignant, rapidly spreading disease that has its origins in breast tissue (Akram et al., 2017). Cancer of the breast occurs when cells in the breast proliferate uncontrollably. The term "cancer" is used to refer to a broad category. The type of breast cancer that develops is determined by which breast cells become malignant (CDC) (CDC, 2020). In both the industrialised and the less developed worlds, breast cancer is the most frequent cancer in females.

About 100,000 people are diagnosed with cancer each year in Nigeria, and sadly, the case fatality ratio is quite high. Nigeria, which accounts for roughly 20% of Africa's population and slightly more than half of West Africa's, contributed 15% of Africa's estimated 681,000 new cases of cancer. As is the case in other developing countries around the world, a large proportion of the increase in incidence of cancer in Nigeria is due to death from infectious diseases, poverty, the increasing prevalence of smoking, physical inactivity, obesity, and other risk factors (Allo, et al., 2017). Breast cancer was the most common cancer overall in all Nigerian centres save from Calabar and Eruwa. The peak age of occurrence in Nigeria was reported to be 42 years old by other authors, with 11% of cases occurring in those under the age of 30.

Symptoms and Risk Factors of Breast Cancer

In most cases, a lump that doesn't feel like the rest of your breast tissue is the first sign of breast cancer. It has been noted, however, that more than 80% of breast cancer cases are diagnosed when the woman feels a lump in her breast (Akhigbe & Omuemu, 2009). In addition to the presence of a lump, other symptoms of breast cancer may include a change in the size or form of one breast, a nipple that moves or changes shape, or a change in the consistency of the breast tissue. Puckering or rashes on or near a nipple, nipple discharge, continuous pain in other breast areas, and armpit swelling are additional possible signs (Sariego, 2010; Pandela, et al., 2016).

Unchangeable risk factors for developing breast cancer include being female, becoming older, and having a family history of breast cancer, especially among mothers and siblings. Non-changeable factors include menarche before the age of 14 or menopause after the age of 55. Being overweight, using HRT, drinking alcohol, and waiting until beyond age 35 to have your first child are also risk factors. Age, personal health history, breast density, inactivity, and ethnicity were also identified by Henley, et al (2017) as contributors to the development of breast cancer. It should be highlighted accordingly that environmental risk factors for breast cancer including any additional factors that are newly identified are all likely to work in combination with existing risk factors (Ahmadian, 2011). (Ahmadian, 2011).

Several risk factors for breast cancer have been identified, including a lack of physical exercise (a sedentary lifestyle), a high-fat diet, and obesity. Diet low in fruits and vegetables, diet comprising 35-40% of fat are rich in cholesterol (cholesterol is a precursor in the production of oestrogens and other steroid hormones) further exposes the breast to larger

amounts of oestrogen, which can encourage the development of cancer. In contrast, a high-fiber diet prevents cancer by preventing the intestine reabsorption of oestrogens (Abdul Kareem, 2013). It's also been found that a woman's breast cancer risk rises in proportion to her lifetime alcohol use. Higher alcohol use is associated with a higher risk (National Cancer Institute, 2018).

Other factors have been implicated as risk factors for Breast Cancer while their influence is unclear. Those things are: It has been established that factors such as smoking, exposure to carcinogenic chemicals, and hormonal changes brought on by working nights can all raise the risk of breast cancer (CDC, 2018; America Cancer Society, 2019). Bras, implants, deodorants, antiperspirants, mammograms, coffee, plastic food containers, microwaves, or cell phones have not been linked to an increased risk of developing breast cancer (National Breast Cancer Foundation, 2019).

At the same time, thanks to better biological diagnostics and treatment options, the number of people who beat breast cancer is rising. The survival rate for breast cancer is rising as a result of better diagnosis and treatment, although it varies greatly among countries. Since 1990, there has been a steady decline in breast cancer-related deaths, and now, more than 2.9 million American women are alive because they beat the disease (Royse & Dignan 2009).

More and more people are being exposed to risk factors for breast cancer, hence the observed burden of breast cancer is anticipated to continue to rise (Fasina, 2016). Survivors of breast cancer face a wide range of challenges, from the cancer itself to the treatment process to life after treatment. Despite the large number of people who have survived breast cancer, the vast majority of qualitative studies on survival have concentrated on the disease's psychological and therapeutic aspects (Sariego, 2010; Ahmadian, 2011; Agbo, et al., 2014). Research conducted by Sariego (2010) using a phenomenological methodology revealed that breast cancer survivors in Lebanon viewed their experience with the disease as an ongoing battle. They said that having to deal with cancer was like having a 'cut in their lives. Despite disparities in diagnosis age, many subjects reported experiencing similar coping facilitators and inhibitors. Lymphedema is a complication of breast cancer treatment, and Ahmadian (2011) investigated and detailed the experiences of breast cancer survivors dealing with this complication.

Breast Cancer Screening

An important component in being aware of your breast health is making sure that you are completing breast self-examinations monthly. It is possible to check for breast irregularities and get to know your breasts while you're in the shower or before bed, giving you an advantage in the event of a problem. After the conclusion of your monthly cycle, give your breasts a self-exam to make sure they aren't sore or swollen. The benefits of BSE include the ability to detect breast cancer earlier than if a woman does not perform BSE, the empowerment that comes from taking charge of one's own health, the empowerment that comes from knowing how one's own breast tissue feels, and the empowerment that comes from knowing that BSE is simple, non-invasive, and does not require any special equipment or training (Al-Alwan, 2015).

Self-examination of the breast helps women become comfortable with their breasts' normal appearance and texture. According to CDC (2017) being familiar with the contour of the breasts, and how they feel can assist the woman recognise any signs, such as lumps, soreness or change in the size of the breast. They shouldn't hold back from telling their doctors if something has changed. After the menstrual period, when a woman's breasts are less

sensitive or swollen, self-examination should begin monthly for all women over the age of 20. A doctor or other medical professional should be consulted for guidance on how to perform a breast exam and what signs to look for. However, studies have shown that this test is not more effective than a mammography for detecting breast cancer at an early stage (American Cancer Society, 2017). According to George et al. (2019), BSE empowers women to manage their own breast health. Consequently, severe illness is always present upon presentation due to a lack of awareness of the symptoms of breast cancer and BSE itself.

Breast inspection by a medical practitioner is known as a clinical breast examination (CBE). The breasts, armpits, and area around the collarbone are all checked for cancerous growths. CBE is aimed to discover BC at an early stage before metastasizing, therefore enhancing the survival chances. Check-ups for breast and underarm cancer (CBE) are physical examinations performed by medical professionals. CBE is a cheap test that has the potential to enhance BC detection (Rawashdeh, et al., 2019). Women between the ages of 50 and 69, as well as moderate- and high-risk women, and women who have had a breast cancer diagnosis in the past may consider include CBE as part of their regular, periodic examinations (Sardanelli & Podo, 2020).

The National Comprehensive Cancer Network (NCCN) recommends that a qualified clinician palpate the woman's breasts, underarms, and areas below the clavicle for changes and abnormalities such lumps, as reported by Allo et al. (2017). The woman can be in a variety of postures, including sitting up and lying down, for the visual and physical evaluation of her breasts. Women are recommended to seek for CBE if their healthcare professionals do not usually do it during their annual physical examination. CBE should be performed annually beginning at age 25 and in addition to a mammogram. Early treatment of breast cancer, if detected by CBE, could involve feeling for the tumour itself. A mammography should be performed as a follow-up to a CBE if it is abnormal or a false positive (Allo, et al., 2017). It is worth noting that American Cancer Society does not suggest CBE for breast cancer screening since there is insufficient scientific data to support it as being effective early breast cancer detection tool (ACS, 2017). (ACS, 2017).

A mammogram is a special type of breast x-ray. It is the gold standard for diagnosing breast cancer and the most trustworthy screening tool. The American Cancer Society recommends that women at high risk for breast cancer, such as those with a personal or family history of the disease, begin getting annual mammograms between the ages of 40 and 54. From 55 years, women could choose to continue with the annual mammography or move to every other year (biennial) (biennial). If the lady is healthy and has a 10-year life expectancy or more, she should continue this test (American Cancer Society 2017). Starting at age 45, women who are at an average risk of developing breast cancer should have a mammogram every year until they are 54. They should continue biennially from 55 years of age.

If you're concerned about breast cancer, getting frequent mammograms is crucial for catching it early, before it causes any noticeable symptoms. It is obvious that breast cancer discovered early with a mammography is less likely to be treated aggressively with surgery and chemotherapy. Furthermore, there is a significant chance of a successful treatment (ACS, 2017). Despite the American College of Physicians' suggestion, the U.S. Preventive Services Task Force, an expert panel that examines study data, has stated that mammograms should begin at age 50 and continue until age 74. Above the age of 75, there is no sign of benefit (Qaseem, et al., 2019).

In order to check for breast cancer, mammography employs low-dose x-rays. Screening mammograms, often known as annual mammograms, have been demonstrated to considerably lower the mortality rate from breast cancer in women aged 40 and over. Two or more x-rays of each breast are typically taken during a screening mammography. Tumors can be seen on the x-rays, and other anomalies may appear that could point to breast cancer. Since breast tissue density decreases with age, mammography has a higher rate of false positives in younger women (Nelson, et al., 2016). Mammography has been shown to reduce breast cancer mortality in women under the age of 50; however, this benefit is small, at only 15-20%. (WHO, 2019).

Magnetic resonance imaging (MRI) of the breast use radio waves and strong magnets. It is typically used together with mammography for screening women who have a high risk of getting breast cancer. If a mammogram reveals a questionable spot, an MRI will provide a clearer image of what's going on. In patients with breast cancer, MRI can potentially provide helpful information (the true size of the malignancy). When it comes to detecting residual tumour following neoadjuvant treatment, MRI is more accurate than mammography.

For women with BRCA1 and other familial risk for breast cancer, MRI improves sensitivity and is cost-effective, but it is pricey, especially for the younger age groups. For women aged 30-60 with a BRCA1 or BRCA2 gene mutation, or a 50% risk of being a carrier, annual screening with MRI is cost-effective. MRI screening is suggested by the United Kingdom's National Institute for Health and Care Excellence (NICE) guideline, the European guideline of the European Society of breast imaging, the American College of Radiologists and American Cancer Society. Access to MRI services in Nigeria is considerably low. It has been found that repeated exposure to mammography increases the risk of breast cancer independent of other factors, yet this is the screening method offered to the small percentage of women who can actually benefit from it. This is especially true for younger women and those with dense breast tissue. Breast MRI, when used to check for breast alterations or abnormalities, involves the use of radio waves and a powerful magnet linked to a computer that provides detailed photographs of your breast (Allo, et al., 2017). (Allo, et al., 2017).

Breast ultrasound (or ultrasonography) uses sound waves to make images of your breast tissue. Abnormalities detected by mammography or a clinical breast exam are frequently further evaluated by breast ultrasonography. The technique's efficacy is highly conditioned on the practitioner's competence and training.

Role of Breast Cancer Screening

Early breast cancer screening of female breasts has been identified as the most effective means to identify precancerous changes in the breast before it becomes malignant (Desantis et al., 2016). Delay with early breast screening results in high morbidity and mortality rate and high economic loss to the nation. Due to the devastating effects of delayed breast and cervical cancer screening to women in the U.S., the government enacted the National Breast and Cervical Cancer. Early Detection Program (NBCCEDP) in 1990 to provide access to timely breast and cervical cancer screening and diagnostic services to low-income, uninsured and underserved women (CDC, 2017). The NBCCEDP from its inception has supported about 12.7 million women in the U.S. to screen for breast and cervical cancer. In 2016, the program provided breast cancer screening and diagnostic services to 290,095 women. From this number, 2,639 women were diagnosed with invasive breast cancer; while 829 women were detected with premalignant breast lesions (CDC, 2017). Early breast cancer screening is an essential and lifesaving service that could prevent avoidable death from breast cancer to all

women, especially among the at-risk women populations. As reported by CDC (2017), most breast cancer death occurs disproportionately among women with no regular source of health care, women without health insurance, and women who immigrated to the U.S.

Early Detection and Prevention: The Need for Breast Cancer Screening

When patients wait too long to seek help, there is often little that can be done to cure their condition. When patients need to make repeated trips to the clinic for palliative care, it can't but but interfere with their daily routines. Late-stage cancers have a high clinical need for chemotherapy, but the treatment comes with significant risks for the patient. A full course of treatment with radiotherapy costs between N60,000 and N120,000 in public institutions and may be as expensive as N500,000 in private facilities, which is a substantial barrier to presentation in Nigeria (da Costa, et al., 2017). When compared to the United States, where a course of chemotherapy runs between $150 and $200 every session and a total of 12 treatments are required, the expense of chemotherapy in Nigeria ranges from 60,000 to 80,000 naira per session. Ten treatments of radiotherapy typically run between $400 and $500 USD. Therefore, screening helps reduce breast cancer mortality and expands treatment options for those who are diagnosed with the disease (da Costa, et al., 2017).

Reducing the disease's morbidity and mortality requires early detection, diagnosis, and treatment of breast cancer and other breast abnormalities. Multiple proposals have been made to screen for and diagnose breast cancer at an early stage. Breast self-examination, clinical breast examination (CBE), ultrasonography, mammography, magnetic resonance imaging, and digital breast tomosynthesis are all examples (World Health Organization, 2019). BSE, CBE, and mammography have all been widely utilised to detect breast cancer.

A professional clinical breast exam (CBE) should be performed every three years for women aged 20-40 years, and annually thereafter, as part of a comprehensive breast cancer screening strategy. Breast self-examination (BSE) should begin monthly at age 20. Women aged 45–54 should get a mammogram annually, while those aged 55 and up should have one every other year; those aged 40–44 can start annual screening if they like (American Cancer Society, 2019).

Challenges Associated with Breast Cancer Screening in Nigeria

To find people who are most likely to have the condition of interest, screening programmes frequently test those who do not yet exhibit any symptoms. It is possible that a screening test will not be able to rule out the condition completely, and that more testing will be necessary to further explore people who are suspected. The primary goals of breast cancer screening are to save lives and enhance the quality of life for those who are diagnosed (da Costa, et al., 2017).

Early detection of breast cancer paves the way for more efficient and less expensive treatment. From a public health perspective, screening tests should be introduced only when the benefits promise to outweigh the risks. Despite being essential to reducing the incidence and severity of many chronic diseases, including cancer, prevention and early detection remain the major obstacles connected with breast cancer management in Nigeria and other developing nations.

Women, especially those from lower socioeconomic backgrounds, face obstacles while trying to get breast cancer screening and treatment services because of cost (Okoronkwo, et al., 2015). Breast cancer mortality and morbidity can be reduced with a stronger national commitment to providing screening services to all eligible uninsured women. Preventative measures, such as regular screening for cancer, are crucial if the United States is to achieve its

aim of eliminating cancer-related deaths and suffering. However, many women with early breast cancer have no symptoms, making it difficult for them to get the screening tests that are advised (Sardanelli & Podo, 2020).

Conclusion

Screening for breast cancer establishes a foundation for early diagnosis and rapid treatment, which together reduce breast cancer-related suffering and loss of life. Much more crucial is spreading illness awareness and education so that people can begin screening themselves as soon as possible. The prognosis for breast cancer varies depending on its stage at detection, making breast cancer screening a crucial intervention in breast cancer control.

REFERENCE

Agbo, P. S., Khalid, A. & Oboirien, M. (2014) Clinical presentation, prevalence, and management of breast cancer in Sokoto, Nigeria. *Journal of Women's Health Care*, 3, 21000149. DOI10.4172/2167-0420.1000149. Retrieved 5/8/2020.

Ahmadian, M. (2011). *Factors Influencing Women's Participation in Breast Cancer Prevention Program in Tehran, Iran.* Doctoral Research. University Putra Malaysia.

Akhigbe, A. O. & Omuemu, V. O. (2009). Knowledge, attitudes, and practice of breast cancer screening 250 among female health workers in a Nigerian urban city. *BMC Cancer,* 9(1), 203.

Akpo, E., Akpo, M. & Akhator, A. (2009): Breast Cancer Knowledge and Screening Practice among 251 Nigerian Medical Students. *The Internet Journal of Health, 11*(2), 56 – 67.

Akram, M., Iqbal, M., Daniyal, M., & Khan, A. U. (2017). Awareness and current knowledge of breast cancer. *Biological Research*, *50*(1). https://doi.org/10.1186/S40659-017-0140-9

Allo, T.A., Edewor, P. A., Imhonopi, D. (2017).Assessment of perceived risks of breast cancer and breast cancer screening among women in five selected local governments in Ogun State, Nigeria.sagepub.com/home/sgo DOI: 10.1177/2158244019841924.

American Cancer Society. (2018). Breast cancer facts and figure 2017-2018. Atlanta cancer society.https:// www.cancer.org.

American Medical Association. (2019). Breast Cancer Screening for Women at Average Risk: 2015 Guideline Update from the American Cancer Society.

Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*. https://doi.org/10.3322/caac.21492

Centers for Diseases Control and Prevention. (2017). What Is Breast Cancer? Retrieved from https://www.cdc.gov/cancer/breast/basic_info/what-is-breast-cancer.htm

Centers for Diseases Control and Prevention. (2020). What Are the Risk Factors for Breast Cancer? Retrieved from https://www.cdc.gov/cancer/breast/basic_info/risk_factors.htm

da Costa Vieira, R. A., Biller, G., Uemura, G., Ruiz, C. A., & Curado, M. P. (2017). Breast cancer screening in developing countries. *Clinics*, *72*(4), 244–253. https://doi.org/10.6061/CLINICS/2017(04)09

DeSantis, C. E., Siegel, R. L., Sauer, A. G., Miller, K. D., Fedewa, S. A., Alcaraz, K. I., & Jemal, A. (2016). Cancer statistics for African Americans, 2016: progress and opportunities in reducing racial disparities. CA: a cancer journal for clinicians, 66(4), 290-308.

Fasina, B.O. (2016). Influence of psychosocial factors on breast cancer screening among women in Southwest, Nigeria. Unpublished Thesis submitted to the Faculty of Education, Ekiti State University, Ado Ekiti, Nigeria.

George, T. O., Allo, T. A., Amoo, E. O. & Olonade, O. (2019). Knowledge and attitudes about breast cancer among women: A wake-up call in Nigeria. *Journal of Medical Sciences,* 7(10), 1700-1705.

Henley, S. J., Singh, S. D., King, J. Wilson, R. J., O'Neil, M. E., Ryerson, A. B., (2017). Invasive cancer incidence and survival – United States, 2013. *Morbidity and Mortality Weekly Report, 66(3), 69-75*

Janice L., & Kerry, H., (2014). *Brunner & Suddarth's textbook of Medical-surgical Nursing*. 10th edition. Unit3, chapter 16(pages 316). Philadelphia, P.A. Lippincott Williams and Wilkins

National Breast Cancer Foundation, (2019). Risk Factors. Retrieved from https://www.nationalbreastcancer.org/breast-cancer-risk-factors

Nelson, H. D., O'Meara, E. S., Kerlikowske, K., Balch, S., & Miglioretti, D. (2016). Factors associated with rates of false-positive and false-negative results from digital mammography screening: an analysis of registry data. *Annals of internal medicine,* 164(4), 226-235.

Ogunkorode, A., Holtslander, L., Anonson, J., & Maree, J. (2017). Promoting early detection of breast cancer and care strategies for Nigeria. *African Journal of Reproductive Health*, *21*(2), 18–25. https://doi.org/10.29063/AJRH2017/V21I2.3

Pandela, A. I., Milkie, V., Muhammad, H., Marfani, F., Mallick, S. Peek, M. & Quinn, M. T. (2016). Religious beliefs and mammography intention: findings from a qualitative survey of a diverse group of American Muslim women. *Psychoncology*, 25(10), 1175-1182.

Qaseem, A., Lin, J.S., Mustafa, R. A, & Wilt, J. (2019). American College of Physicians. Screening for Breast Cancer in Average-Risk Women: A Guidance Statement from the American College of Physicians. *Annals of Internal Medicine,* 170, 547–560. https// doi: org/10.7326/M18-2147

Rawashdeh, M., Zaitoun, M., McEntee, M. F., Abdelrahman, M., Gharaibeh, M., Ghoul, S., & Saade, C. (2019). Knowledge, attitude and practice regarding clinical and self breast examination among radiology professionals. *Breast Cancer Management*, 7(3), BMT16.

Royse, D. & Dignan, M. (2009). Improving cancer knowledge and screening awareness: the test of a telephone interviewer intervention. *Journal of Cancer Education,* 24(4), 315-318.

Sardanelli, F., & Podo, F. (2020). Primary Studies on Breast MRI Screening of High-Risk Women. In Breast MRI for High-risk Screening (pp. 131-151). Springer, Cham.

Sariego, J. (2010). The impact of facility volume/size on breast cancer treatment and outcome. *American Surgeon, 76,*12, 1333-1337.

Cite this article:
Author(s), ABIODUN, Olukemi Felicia (RN, BNSc.), OHAERI, Beatrice (RN, Ph.D), OJO, Iyanuoluwa O. (RN, Ph.D), BABARIMISA, Oluwatoyin (RN, M.Sc.), (**2022**). **"** Early Detection and Prevention; The Role of Breast Cancer Screening"**, *Name of the Journal:*** Commonwealth Journal of Academic Research, (CJAR.EU), P, 10- 20. DOI: http://doi.org/10.5281/zenodo.7554357 , Issue: 1, Vol.: 4, Article: 2, Month: February, Year: 2023. Retrieved from https://www.cjar.eu/all-issues/

Published by

AND

ThoughtWares Consulting & Multi Services International (TWCMSI)