Breast Cancer in Our Community: A Review of Risk factors, Treatment, and Outreach

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Breast cancer in women is the second leading cause of cancer-related deaths in the United States and affects over three million women each year (National Cancer Institute [NCI], n.d.). The most common types of breast cancers are carcinomas originating in the epithelial cells, and adenocarcinomas, carcinomas originating in the milk ducts or milk-producing glands of the breasts (American Cancer Society [ACS], 2021). Breast cancer is also staged from zero to four regarding the location and extent of spread, but most are found early with localized spread. Many women in the United States have been diagnosed or know someone who has been diagnosed; there is hope for treatment and disease management. Further, while the thought of any cancer is life-changing, breast cancer has a great prognosis with detection through radiologic screenings and genetic testing, and a high survival rate regarding risk reduction, appropriate teaching, and adherence to treatment and management.

Statement of Problem

Notably, in 2021, it was estimated that 3,972,256 women were living with breast cancer in the United States. With this statistic in mind, it is necessary to understand the risk factors. Two of the most common risk factors, regardless of age and menopausal status, are low physical activity and alcohol use (Cohen et al., 2023). Other modifiable risk factors include cigarette smoking, obesity, and menopausal hormone therapy. Non-modifiable risk factors would be BRCA1 or BRCA2 genetic mutations, family history, and dense breast tissue. Non-Hispanic White women have the highest incidence of breast cancer, followed by Non-Hispanic Black women, with both ethnic groups having been most often diagnosed starting at age 40-49 (US Preventative Services Task Force [USPSTF], 2024). With the high incidence rate of breast cancer in the United States, it is essential to understand the implications within the nursing community.

In 2022, the percentage of men in nursing was 11.2% in the US (Rosseter, 2024). This means that women make up 88.8% of this workforce. However, statistics also show that 13.1% of women will be affected by breast cancer (NCI, n.d.). This is alarming because most of the nurses are at risk of getting diagnosed with breast cancer themselves. Further, if patients are not preventatively reducing risk factors, getting screened, having genetic testing done, or getting appropriate treatment, their mortality rates from breast cancer will increase. It has already been mentioned that at a localized stage, breast cancer is treatable; if nurses do not educate effectively and patients do not adhere to recommendations, treatment success subsequently declines. Further, financial or physical, inaccessibility to screenings potentiates a barrier to care, thus increasing their risk for widespread metastasis and high morbidity rates of other diseases, leading to hospitalizations from complications of disease progression.

Risk Reduction/Treatment of the Problem

To reduce the risk of breast cancer and subsequent progressive complications, even with nonmodifiable risk factors, lifestyle changes should be made. Smoking and alcohol cessation is the gold standard of care, alongside increasing physical activity, weight reduction, and reducing hormonal therapy. Alternatively, protective factors for reducing the risk of breast cancer are early pregnancy before age 20, breast-feeding, physical exercise, prophylactic mastectomy, and prophylactic oophorectomy (NCI, n.d.). These preemptive surgeries are typically done by women who have a family history of breast cancer or the BRCA1 or BRCA2 genetic mutations due to the risk of spread to the ovaries. Additionally, nutrition is also an important modifiable risk factor, such as the Dietary Approach to Stop Hypertension (DASH) diet. Foods within the diet, such as fruits, vegetables, nuts, grains, low-fat dairy, fish, and eggs, reduce the intake of processed foods containing cancer-feeding chemicals (Lee et al., 2022). Further, physical activity

was shown to improve the quality of life in those undergoing treatment and in survivors (Aune et al., 2022). Although physical activity is a preventative measure, utilizing it to improve quality of life can considerably increase treatment success.

Another way to reduce risk is early screening, such as ultrasounds, digital mammography, and digital breast tomosynthesis (DBT), also known as 3D mammography. It is suggested that digital mammography screening takes place every two years from age 40-74 (USPSTF, 2024). Those who are at higher risk, such as women with dense breasts, could seek additional screenings, although this is not critical due to a lack of significant positive findings outside of digital mammography (USPSTF, 2024). This is not to say that these tests are not beneficial, but they may make patients feel more at ease when receiving screening of a multimodal approach. It is still best to take the advice of the primary care provider to assess individual needs.

After a woman is diagnosed treatment options vary, such as surgery, chemotherapy, and radiation therapy. The most common and effective surgeries are breast-conserving surgery (BCS) and mastectomy (Lai et al., 2024). Other surgery can include axillary lymph node dissection (ALND), which reduces the risk of lymphedema compared to a double mastectomy. The best strategy for frail patients with nonmetastatic breast cancer is a mastectomy to reduce the risk of recurrence within the breast tissue. It is also shown that endocrine therapy alone, also known as hormone replacement therapy, is linked to a risk of locoregional recurrence and lowered survival rates (Lai et al., 2024). Many individuals are fearful of surgery, largely related to the psychosocial implications of mental health and body image. For most women, their breasts are directly linked to their sense of womanhood and personal identity; a mastectomy can be challenging and life-altering.

Additionally, this research highlights the significant differences and outcomes between

treatment options, showing that mastectomies and BCS are the hallmark options. While ALND and endocrine therapy alone may not be sufficient in decreasing the risk of recurrence, combining these therapies increases survival (Lai et al., 2024). Even with a breast cancer diagnosis and subsequent treatment, the five-year survival rate for each stage is as follows: 99.6% for localized spread, 86.7% for regional spread, and 31.9% for distant metastasis (NCI, n.d.).

Overall, reduction of known modifiable risk factors, early screening with biennial adherence, and choosing the appropriate treatment with a healthcare provider are crucial to managing this disease. Early lifestyle changes such as nutrition, increasing physical activity, and weight reduction, combined with screening measures starting at least at age 40, can decrease the chances of receiving a breast cancer diagnosis.

Planning of Teaching Content

Breast cancer teaching content, specifically at the community health fair, will be most beneficial when establishing learning objectives. One goal is that the learner will implement preventative measures, such as daily walking, smoking and alcohol cessation, or the DASH diet, to reduce the impact of modifiable risk factors. A second aim is that the learner will schedule a biennial screening of an ultrasound, DBT, MRI, or digital mammography, based on their healthcare provider’s recommendation. A third target is that the learner receives genetic testing for BRCA1 and BRCA2 genetic mutations before the age of 40.

Teaching strategies are to relieve anxiety for the learner and utilize approaches for different learning styles. A few examples would be visuals of what each screening tool does and how they are different, or a video overview of what breast cancer is and ways to reduce risk. A third strategy would be a written pamphlet of information for the learner to take home with

government and medical-approved websites to receive information in a safe, reliable way. Activities to help enhance these strategies would be trivia questions or a jeopardy-like game about risk factors, screening methods, and treatments. Further, a set of fake breasts with different sizes of spherical objects, such as a golf ball or marbles, will help women understand what a hardened mass, nodule, or tumor could feel like in their breasts. Finally, a tri-fold poster with breast cancer awareness information, ribbons, stickers, and bracelets to hand out to individuals.

Conclusion

In conclusion, it is fundamental to discuss modifiable and nonmodifiable risk factors, and what screenings may be best suited for each individual. Nurses must share knowledge rooted in evidence-based practice in an individual and a community setting. Once women receive this information, they must bring up any financial concerns regarding screening and treatment, as it is a potential barrier to receiving care. Women need to advocate for themselves, just as much as nurses need to reciprocate that advocacy to ensure everyone in our nursing community, in Sussex County, and within the United States receives the compassionate, patient-centered care they deserve to improve mortality and survival rates while decreasing the risk of recurrence.

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