

Prevention and Treatment of Breast Cancer

Jaylee Backus

Margaret H. Rollins School of Nursing

N102: Nursing Care of Adults

Heather Snyder, RN

March 29, 2024

Prevention and Treatment of Breast Cancer

“I believe knowledge is power. Several of my aunts were diagnosed with breast cancer, and my mom and aunt have BRCA gene mutations. So, I knew that learning whether I have a BRCA gene mutation would give me the power to make better decisions for my health. And it did. It inspired me to protect my health and spend time doing what I love” stated Cassie (Centers for Disease Control and Prevention, 2021). Cassie is a young lady who tested positive for the BRCA1 gene mutation after getting a screening due to her family history of breast cancer. Cassie had her breasts removed as well as her ovaries to prevent the development of cancer. Breast cancer affects men and women but is significantly more prevalent in the female population and is one of the most common cancers among women in the United States directly following skin cancer. Breast cancer is diagnosed with a series of tests and imaging techniques, as well as staged, like many other cancers. Staging is used to determine the progression of the cancer and metastasis to other organs or tissues within the body. Breast cancer is one of the cancers that can be linked to the mutation of a specific gene, in this case the BRCA gene. It is essential in the prevention of breast cancer to understand its signs and symptoms, risk factors and modifications, as well as diagnostic studies and treatments available. Breast cancer is a very well-known disease and affects a significant number of people every year.

Statement of the Problem

Cancer is defined as the abnormal growth of cells in the body and is the second leading cause of death in the United States. According to recent studies, almost 300,000 new cases of breast cancer were diagnosed and approximately 43,000 women died from breast cancer in 2022 but male breast cancer is known to account for only 1% of breast cancer in the United States (American Cancer Society, 2022). Some different types of breast cancer include invasive ductal

carcinoma, invasive lobular carcinoma Paget's disease of the breast and inflammatory breast cancer. Invasive ductal carcinoma starts in the milk ducts and spreads to the surrounding breast tissue while invasive lobular carcinoma starts in the lobules that produce milk. Paget's disease of the breast is a rare cancer that involves the skin and nipple of the breast. Without awareness and education, the nursing community will continue to see a rise in breast cancer diagnoses as well as breast cancer related deaths. These diagnoses often prove devastating to patients and their families as they work through treatments and the specific challenges that are presented along with such. In a recent study of impairments following breast cancer treatment, it was found that patient's underlying emotional well-being and physiological distress played a significant role in successful treatment (Hebron, Kenyon, McCrum, & Vuoskoski, 2020). With the significant incidence of breast cancer along with continuously rising diagnoses, it is crucial to take preventative measures and frequent screening.

Risk Reduction/Treatment of the Problem

Like any other cancer, it is imperative that breast cancer is caught early to be successfully treated. This is why it is so important for individuals to participate in routine screenings and self-examinations. Self-examinations are performed by an individual to palpate the breast for any new or changed lumps or masses that can be felt in the breast tissue and should be done frequently. Current recommendations for screenings include mammography, ultrasonography, Magnetic Resonance Imaging, chest radiology, and radionuclide scans. Mammography is used to reveal a tumor too small to palpate whereas an ultrasound is used to determine if the mass is filled with fluid or solid. Chest radiology and radionuclide scans are used to detect metastasis in other organs (Lippincott, 2023). Although often asymptomatic, an individual with breast cancer may experience a change in breast size, shape, tissue density and presence of a painless lump or

mass. Most breast cancers are found in the upper, outer section of the breast and also in the nipple. One may also experience discharge from the nipple, edema of the arm as well as dilated breast veins. Individuals with increased risk of developing breast cancer include those with a family history, sedentary lifestyle, use of oral contraceptives, exposure to radiation, presence of the BRCA 1 and BRCA 2 gene, early onset of menses or menopause, as well as a previous cancer diagnosis (Lippincott, 2023). It is important to know that although the presence of these symptoms or risk factors are intimidating, this alone does not guarantee a cancer diagnosis. Diagnostic studies must be reviewed to confirm or deny a cancer diagnosis of any kind. Cassie, as mentioned earlier was notified that she was a carrier of the BRCA gene, so she decided to take preventative treatment measures such as a mastectomy (Centers for Disease Control and Prevention, 2021). It is shown that with proper treatment, breast cancer can be cured after meeting specific guidelines on the remission timeline: “Breast cancer recurrence in most cases occurs within one to three years after diagnosis, and patients who have not experienced a recurrence after five years are generally considered clinically cured” (Pan, Tang, Zhang, 2023). There are many forms of effective treatment and methods of management for those who are diagnosed or suspected to have breast cancer.

Two common treatment options for breast cancer include medication therapy as well as procedural treatments. Medication therapy can include chemotherapy, hormone therapy, immunotherapy, or targeted therapy. Chemotherapy is used to chemically eliminate the rapid production of cells that occur with cancer. These therapies can be used in combination with other treatment methods to increase the chance of defeating the most significant amount of cancer cells in the body. Some procedural treatments include a mastectomy, radiation therapy, breast-conserving surgery, and lymph node dissection. A mastectomy is the removal of a breast in its

entirety whereas breast-conserving surgery only removes the diseased breast tissue (Lippincott Advisor, 2023). Positive lifestyle choices can help to treat and prevent breast cancer from occurring. These choices might include self-examination, awareness of risk factors, promoting an active lifestyle, limiting radiation exposure and frequent screenings, especially if the individual is in a high-risk demographic.

Planning of Teaching Content

Breast cancer is a complicated and prominent disease that has affected the lives of many individuals world-wide. Per recent data, “In 2020, an estimated 2.3 million cases of female breast cancer were diagnosed globally, and about 685,000 women died from the disease” (Arnold et al., 2022). With that being said, it is important that the community understands that there are many things that can be done to stop the progression and even treat this disease. Self-examination is crucial in the early diagnosis of breast cancer which significantly increases the chance of survival and remission. Breast cancer is also treated in many different ways including surgery, radiation therapy and chemotherapy that give the patient the greatest chance of survival and most optimal quality of life. There are many different effective teaching methods that allow for different individuals to grasp an understanding of a concept. Some of which include visuals, diagrams, statistics, games and so many more. It is important that as many of these teaching strategies as possible are utilized to give everyone in the community an opportunity to learn from the presentation. A poster board including facts and statistics as well as games, props and prizes will all be provided to members of the community, once again to ensure that key points and topics are being received in the most effective way possible.

Conclusion

There are thousands of people diagnosed with cancer every day and that number only

increases each year. As previously discussed, there are many diagnostics, exams and tests that can be done to determine the presence of cancer as well as genetic risk factors to developing cancer. Breast cancer specifically has a genetic presence and individuals can be tested for the BRCA gene that will indicate their increased risk factor. Preventative measures can be taken to reduce the risk of breast cancer, including a mastectomy. It is no secret that the cancer diagnosis overwhelms the life of the patient as well as their support system. Preventative measures and screenings can decrease the devastation that these individuals and families must endure. If an individual has an increased risk or experiences signs or symptoms of breast cancer, it is important that they seek treatment as soon as possible to determine their diagnosis and treatment if necessary. At the health fair, more information regarding breast cancer will be provided in many different formats including visuals, statistics, games and even prizes. It is essential in the prevention of breast cancer that the community can understand possible signs and symptoms, risk factors and modifications, as well as diagnostic studies and treatments available.

References

American Cancer Society (2022). Breast cancer facts and figures 2022-2024.

<https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-andstatistics/breast-cancer-facts-and-figures/2022-2024-breast-cancer-fact-figures-acs.pdf>

Arnold, M., Morgan, E., Rungay, H., Mafra, A., Singh, D., Laversanne, M., Vignat, J., Gralow, J., Cardoso, F., Siesling, S., & Soerjomataram, I. (2022). Current and future burden of breast cancer: Global statistics for 2020 and 2040. *The Breast*, 66, 15-23.

<https://doi.org/10.1016/j.breast.2022.08.010>

Centers for Disease Control and Prevention. (2021, October 20). Cassie's Story from CDC's Bring Your Brave Campaign.

https://www.cdc.gov/cancer/breast/young_women/bringyourbrave/stories/cassie/index.htm

Hebron, C., Kenyon, K., McCrum, C., & Vuoskoski, P. (2020). Physiotherapists' experiences of managing upper limb movement impairments due to breast cancer treatment.

Physiotherapy Theory and Practice, 36(1) 71-84.

<https://doi.org/10.1080/09593985.2018.1480077>

Lippincott Advisor. (2023). Breast cancer. Retrieved March 21, 2024, from

<https://advisor.lww.com>

Tang, J., Pan, X., & Zhang, D. (2023). Development and validation of competitive risk model for older women with metaplastic breast cancer. *BMC Women's Health*, 23, Article 374.

<https://doi.org/10.1186/s12905-023-02513-x>