

Assessment of knowledge and awareness about breast cancer and mammography among females in Jaipur

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Abstract - Breast cancer is the leading cause of cancer-related deaths among women worldwide. In India, one in twenty-eight women is likely to develop breast cancer during her lifetime. Mammography is an X-ray imaging technology that is extremely susceptible and specific to detecting breast cancer. Breast cancer detection at an early stage is crucial for reducing death rates. The two components of early cancer detection are advanced diagnosis and screening. In Jaipur, Rajasthan, a study was conducted to assess women's knowledge and awareness about breast cancer and mammography. However, no search results emerged that provided information about the study's findings.

Keywords: Breast cancer, mammography, bse, knowledge, awareness, females

I. INTRODUCTION

Breast cancer, the most common malignancy among females, is defined as the unfettered growth of cells in the breast. Breast cancer symptoms and indicators include lumps in the breast, changes in breast size, darkening of the skin surrounding the breast, and nipple discharge. In 2018, over 2 million new cases of breast cancer were recorded worldwide, accounting for 11.6% of all cancer cases. Breast cancer is the leading cause of cancer-related fatalities among women. In 2020, there will be 2.3 million women diagnosed with breast cancer and 685,000 deaths worldwide (WHO-2020).^{4,5} Different tests are used to diagnose breast cancer before symptoms and indicators such as a firm lump in one or both breasts, redness, nipple discharge, changes in breast size and structure, inverted nipples, and skin rashes appear Gøtzsche et al., (2013).

The most widely used techniques for finding breast cancer include Breast self-examination. Clinical breast examination, Mammography, Breast USG, and Breast tissue biopsy.

Mammography is an X-ray imaging tool that is exceptionally sensitive and specific for identifying breast cancer. When breast cancer is detected early, fewer people die because of the diagnosis. As a result, care must be taken to guarantee early detection and treatment. Primary diagnosis and investigation are two critical ways for primary identification. Expanding ladies' awareness and comprehension of basic cancer indicators is an important part of primary diagnosis. A cancer diagnosis that is advanced drives up the chance of a successful therapy. The two components of early cancer detection are screening and advanced diagnosis. Identifying those who are presenting symptoms as soon as feasible is part of early diagnosis. While screening entails examining healthy people Coliman et al., (2003).

II. METHODOLOGY

The study helps to evaluate the knowledge and awareness among females of Jaipur, Rajasthan about breast cancer and mammography. An open-ended questionnaire was circulated through online mode via Google Forms among females in Jaipur. The total number of responses received was 150.

III. DATA ANALYSIS

The study helps to evaluate the knowledge and awareness among females of Jaipur, Rajasthan about breast cancer and

mammography. An open-ended questionnaire was circulated through online mode via Google Forms among females in Jaipur. The total number of responses received was 150.

IV. REPRESENTATION OF RESPONSES OF PARTICIPANTS

Distribution based on awareness about breast cancer.

The survey shows that 79.3% of females know about breast cancer, 13.3% of females don't know about breast cancer and 9.3% of females are not sure about breast cancer.

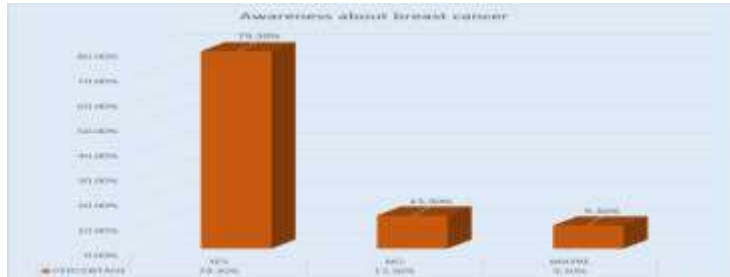


Figure 1: Shows the graph of the percentage of females having knowledge about breast cancer

Based on the practice of breast self-examination

The study showed that only 33.3% of females practice breast self-examination, 61.3% which is a higher percent of women who don't regularly check their breasts and 8% of females don't know about breast self-examination.

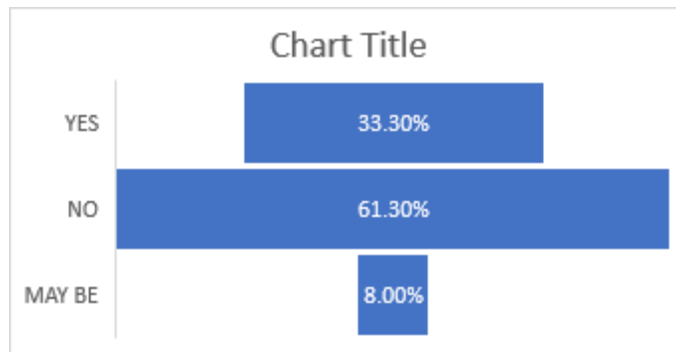


Figure 2: shows the percentage of females who practice breast self-examination

Distribution based on the importance of breast self examination

The survey shows that approximately 69.3% of females think that breast self-examination is necessary, 10% of females think that breast self-examination is not necessary and 20.7% of females are not sure about the need for breast self-examination.



Figure 3. shows the percentage of females who think breast self-examination is necessary

Distribution based on the times you perform the bse

The study shows that the percentage of females who perform BSE every day is 4.7%, every month is 14%, every week is 6.7%, every year is 2.7% and a higher percentage of females that is 72% are not sure about the same.

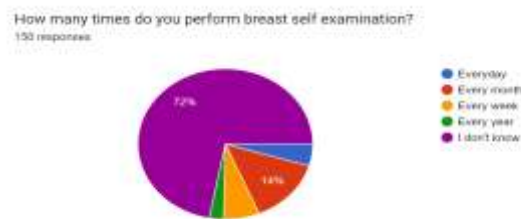


Figure 4. shows the percentage of females who perform BSE

Distribution based on the awareness of mammography

The study shows that around 76.7% of females are aware of mammography, 22.7% of females don't know about mammography and 0.7% of females are not sure what mammography is.

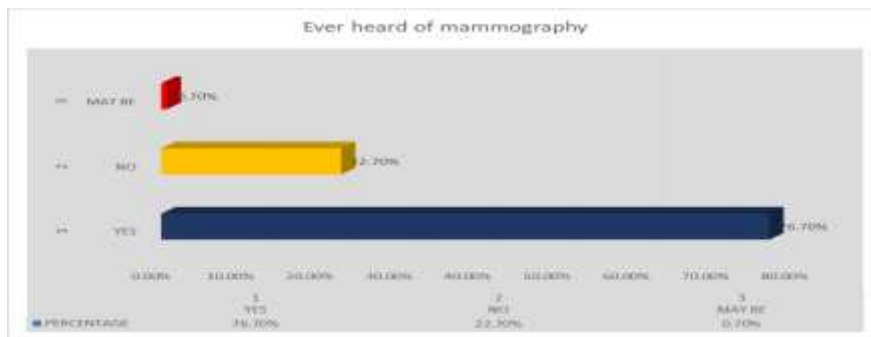


Figure 5: shows the percentage of females who are aware of mammography.

Distribution based on screening mammography

The study shows that around 5.3% of females ever go for screening mammography.93.3% of females didn't go for screening and 1.3% of females are not sure about this.

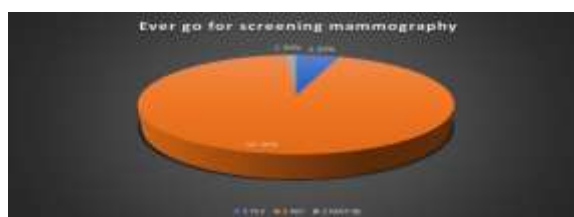


Figure 6. shows the percentage of females who have ever gone for screening mammography.

Distribution based on the history of breast cancer

The survey shows that the max percentage of females that is 93.3% don't have any kind of history of breast cancer and 6% females have previous breast cancer history.



Figure 7: shows the percentage of the history of breast cancer.

V. RESULTS

The survey shows that 79.3% of females know about breast cancer, 13.3% of females don't know about breast cancer and 9.3% of females are not sure about breast cancer. the percentage of females who don't have any kind of history is 93.35% and 6% of females have previous breast cancer history. The study showed that only 33.3% of females practice breast self-examination, 61.3% which is a greater proportion of women don't perform breast self-examination and 8% of females don't know about breast self-examination. Although 69.3% of females think that breast self-examination is necessary, 10% of females think that breast self-examination is not necessary and 20.7% of females are not sure about the need for breast self-examination. The percentage of females who perform BSE every day is 4.7%, every month is 14%, every week is 6.7%, every year is 2.7% and a higher percentage of females that is 72% are not sure about the same. Mammography cannot be done in reproductive-age females, but this study's primary goal is to evaluate the knowledge about it, and it was observed that around 76.7% of females are aware of mammography, 22.7% of females don't know about mammography and 0.7% of females are not sure what mammography is, only 5.3% of females ever go for screening mammography, 93.3% of females didn't go for screening and 1.3% of females are not sure about it.

VI. DISCUSSIONS

Breast cancer, the most widespread cancer in women, is caused by the alarming multiplication of breast cells. The key breast cancer warning signs and symptoms include lumps in your breast, changes in breast size, darkening of the nipple and skin surrounding the breast, and nipple discharge. In 2020, 2.3 million females were diagnosed with breast cancer, and 685,000 individuals died as a result of the disease. As of the end of 2020, 7.8 million active females have been diagnosed with breast cancer in the previous five years. This study is done by reviewing 16 different articles which are related to the knowledge and awareness about breast cancer and mammography. We took data from different regions of Jaipur such as NIMS University, Vivekananda Global University, and SMS Jaipur. The age criteria for this study were females of reproductive age above 18 years and females in menopausal age at 45 years. It was observed that most of the females who participated in this survey are students (70.7%), and 22.7% of females are working in the healthcare sector (51.3%). This study was conducted, from January 2023 to April 2023. the result of this study is different from the study conducted by Alsowayan, A. A., Almotyri et al, according to their study 95.4% of women are conscious of breast cancer with women having poor knowledge 38.9% and good knowledge 61.1%, but according to my study, 79.3% of females know about breast cancer, 13.3% of women are unaware of breast cancer, and 9.3% of women are unsure about it. The result of the study conducted by Mohamed EY, Sami W, et al was nearly the same as the result of my study, according to their study the level of performing breast self-examination and performing a screening test for breasts among females is low which is 28.9% and 7.6% respectively. According to this study, it was observed that around 33.3% of females only practice breast self-examination which is very low and only 5.3% of females perform a screening test. The result of this study is different from the study conducted by Khokhar A, according to their study the knowledge and awareness of mammography among females is extremely low, and measures should be taken to educate people about breast cancer and mammography which is 45.1%. according to my study, 76.7% of females are aware of mammography. The result of the study conducted by Alsareii SA, Alqahtani SM et al was different from my study, according to their study the percentage of breast cancer in one's family is 18%, but according to my study, the percentage of the history of breast cancer is 6% which is low.

VII. CONCLUSION

The study concluded that most of the females who participated in this study are students and females who are employed in the field of healthcare, and they are aware of breast cancer and mammography. The study showed that women in Jaipur generally lacked sufficient understanding of and experience with BSE. As BSE awareness and use might increase acceptance of breast cancer screening, organizations must focus on the issue with suitably planned measures. There is a need for awareness of self-breast examination among females.

The limitation of this study was that the data which has been collected was from the Jaipur region only. there was no contribution from the housewives which create a huge impact in the study. The responses from the females of the age group Of 40-45 years were very low as the females of that age group they are major target.

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