



ASSESSMENT OF AWARENESS ON RISK FACTORS AND SCREENING PRACTICES FOR BREAST CANCER AMONG AGE GROUP OF 18-65 YEARS WOMEN

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ABSTRACT

The study's objectives were to evaluate women's knowledge of breast cancer and screening practises as well as their awareness level of the risk factors for breast cancer among women between the ages 18 and 65. **METHODOLOGY:** 505 women between the ages of 18 and 65 participated in a cross-sectional survey. Software called SPSS was used to examine the data. ANOVA was one tool used to assess the level of screening practise knowledge. **RESULTS:** The relationship between risk factors and screening practices was statistically significant. The age group of 21 to 30 years had an increase in the mean knowledge score about screening procedures and risk factors, while the age group of less than 20 years had seen a decrease. **CONCLUSION:** Overall, more than 50% of the participants who took part in the study had well developed knowledge. We have distributed pamphlets on regional and common languages among the participants to create awareness.

KEY WORDS: Breast Cancer, Breast Self-Examination, Clinical Breast Examination, Mammography.

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INTRODUCTION

The second most common cancer worldwide is breast cancer. Men and women can both affect it, but women are more likely to get it than men.^{1,2} Breast cancer starts to develop in the lining cells (epithelium) of the ducts (85%) or lobules (15%) of the glandular tissue of the breast.³

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Breast cancer can spread to distant organs such the liver, bones, lungs, and brain, making it incurable.⁴ Every 13 minutes, a woman dies from breast cancer somewhere in the world.⁵ Both developed and developing countries are experiencing an increase in its prevalence; in developed countries, the peak incidence occurs after the age of fifty, but in India, it occurs after the age of forty.

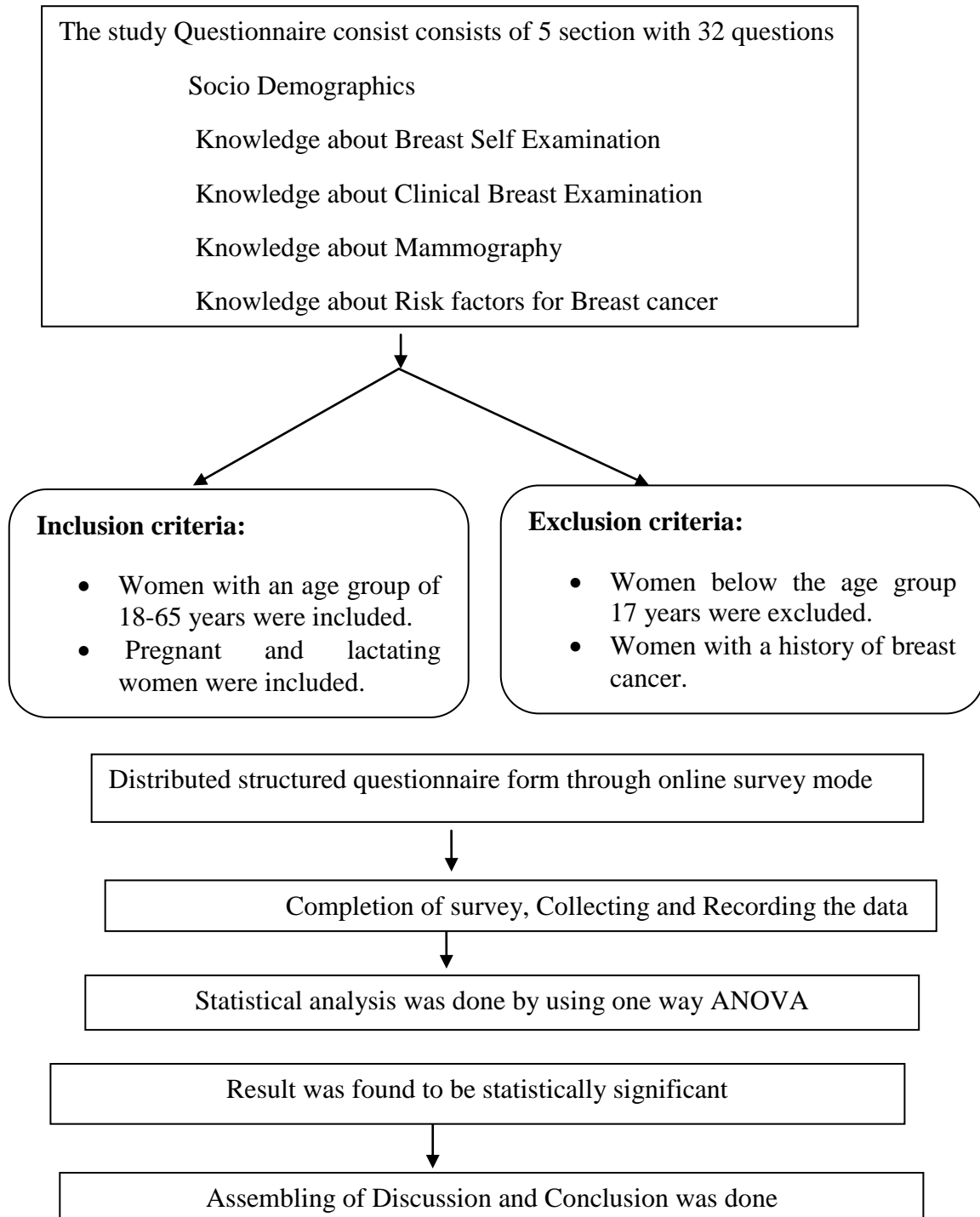
Breast cancer risk factors can be broadly divided into modifiable and non-modifiable factors. Age, gender, menstrual history, age at menarche, age at menopause and number of first-degree relatives with breast cancer are all non modifiable risk factors. Body mass index (BMI), age at first birthing, number of children, length of baby feeding, alcohol consumption, dietary issues, and number of unsuccessful pregnancies are all modifiable risk factors.^{8,9}

A good prognosis and a high survival rates are possible with early detection of breast cancer.¹⁰ The 5-year survival rate has increased to almost 85% with early detection, compared to 56% with late detection.¹¹ The suggested preventive measures to lower morbidity and mortality include mammography, clinical breast examination, and breast self-examination (BSE).¹² Women are encouraged to perform breast self-examination, every month during the second week of their menstrual cycle to check for changes. Women's breast abnormalities can be detected with the help of BSE.¹³ The goal of CBE is to find BC early, before it spreads increasing the likelihood that an individual will survive. A trained healthcare professional will physically examine your underarms and breasts as part of the CBE. Detecting BC earlier may be made possible by CBE. Women between the ages of 50 and 69, those at moderate- and high-risk, as well as those who have had BC, can undergo CBE.¹⁴

PLAN OF THE STUDY

The proposed study, titled "Assessment of Awareness on Breast Cancer Risk Factors and Screening Practices among Women Aged 18 to 65," is planned and carried out as follows.





MATERIAL AND METHODS

Study Design: Using a specially made study questionnaire that was circulated through various sources, a cross-sectional survey was conducted to assess awareness of screening practices and risk factors. **Study site:** Swamy Vivekanandha College of Pharmacy, the study was carried out online in survey method (Ref. no: SVCP/IEC/2021/05, Dated: 15.03.2021). The study was carried out for 6 month (May 2021-October 2021) 505 participants total were included in the study. **Data**



collection:After thoroughly studying the literature, a survey was created, and the respondents completed an informed consent form. Data were recorded once a separate survey had been completed. The survey responses were collected into a Microsoft Excel spreadsheet, which was later cross-checked against the survey entries. Any conflicts were clarified and resolved. A structured study questionnaire was created in English and Tamil. Sociodemographics, knowledge and practise of breast self-examination, clinical breast examination, and mammography as well as risk factor knowledge are the 5 sections of the examination, each having 32 questions. **Statistical analysis:** The data was analyzed with SPSS software. A one-way ANOVA was used to evaluate the knowledge of screening practices and awareness of breast cancer risk factors among women between the ages of 18 and 65. Results were considered statistically significant.

RESULTS

Socio-demographic characteristics:

A total of 505 women with ages ranging from 18-65 years were in the study. Majority 130(26%) participants were more than 50 years,122(24.2%) were 31-40 years, 122(22.2%) were 41-50 years,109(21.6%) were 21-30 years and 22(4.4%) were less than 20 years is shown in Fig. 1. In Education level, the main stream of the participants 265(52.5%) were degree holders is represented in Fig 1.1

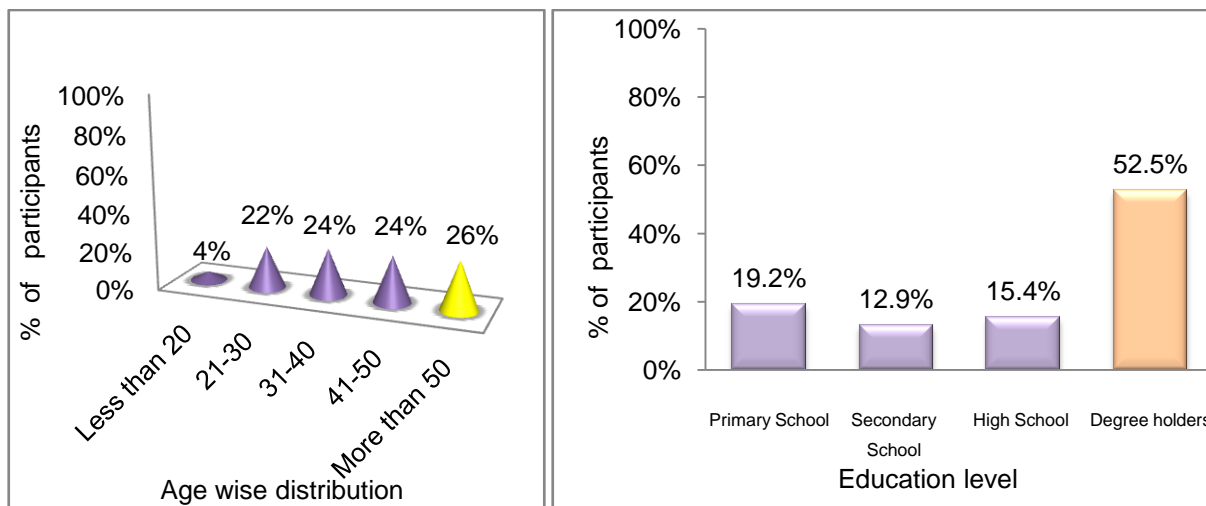


Fig 1: Age Wise Distribution of participants Fig 1.1: Education level of participants

Knowledge and screening practice of Breast Self Examination (BSE):



Fig. 2 shows that 283 (56%) of such 505 participants had heard about BSE, while Figure 2.1 indicates that 262 (51%) of the participants felt that it is a good method for early identification. Fig. 2 illustrates a number of 505 participants, even though only 128 (25.3 %) had performed BSE. Fig. 2.3 shows that 80 (15.8%) of the respondents had practiced BSE once every month.

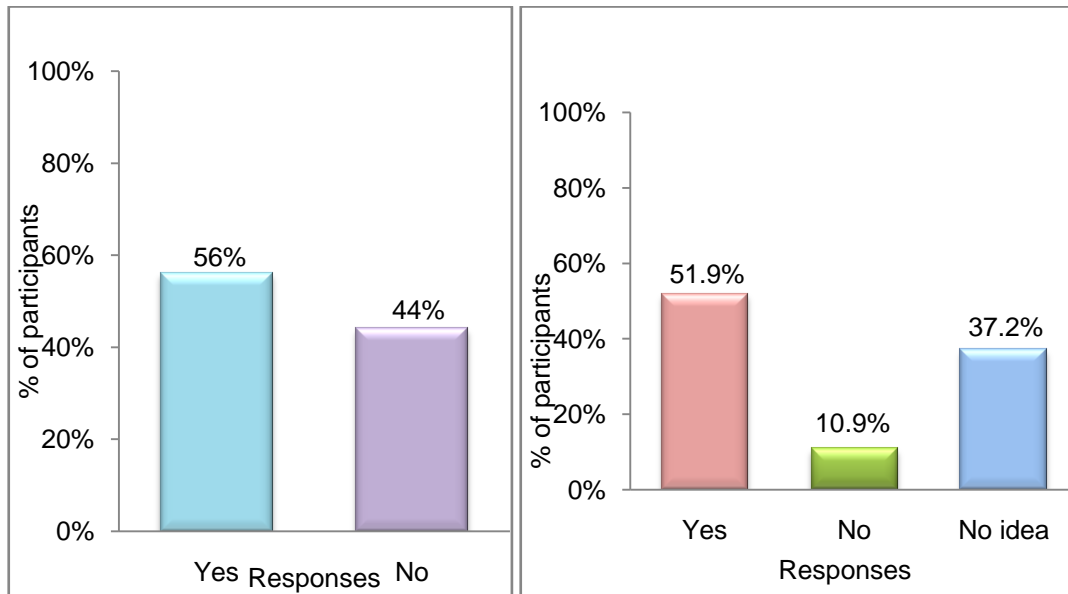


Fig. 2: Participants aware on BSE Fig.2.1: knowledge of BSE in early detection

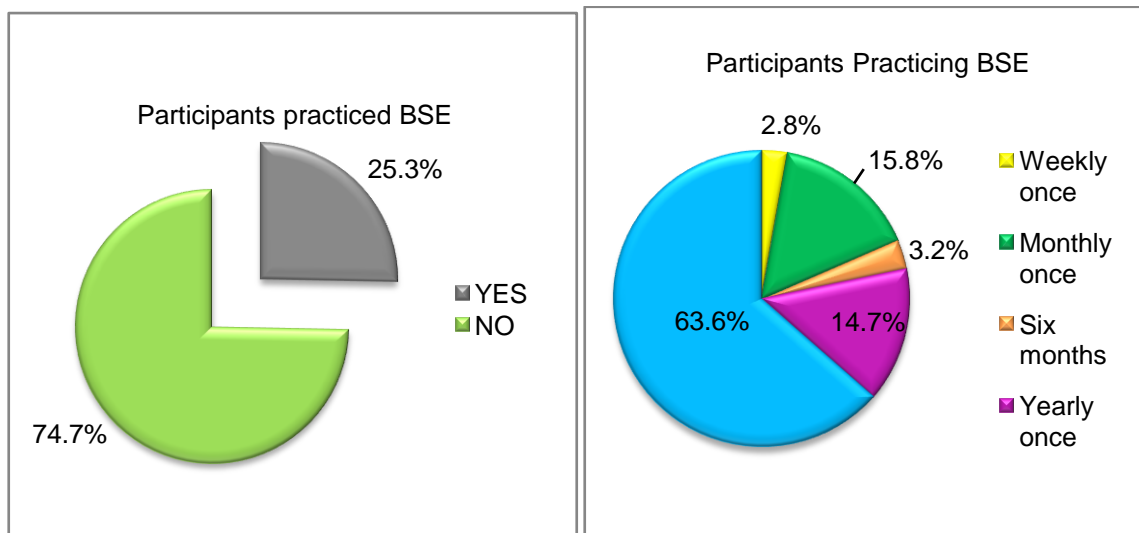


Fig.2.2: Participants practiced BSE Fig.2.3: Participants Practicing BSE

Knowledge and screening practices of Clinical Breast Examination (CBE):



Fig. 3 shows that out of 505 participants, 220 (43.6%) have heard about CBE whereas 285 (56.4%) never had. Fig. 3.1 shows that 237 (46.9%) of the 505 participants agreed that CBE is an effective method for breast cancer in early diagnosis.

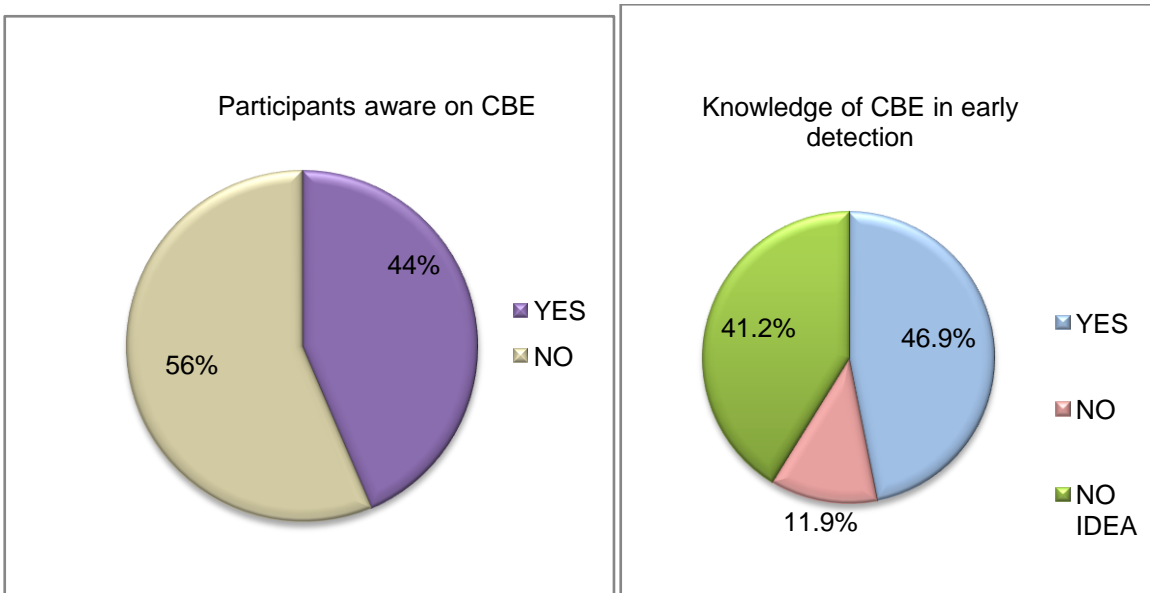


Fig.3: Participants aware on CBE Fig .3.1: knowledge of CBE in early detection

Knowledge and screening practices of Mammography:

A total of 505 individuals participated. Fig. 4 shows that 231 (45.7%) of the respondents had heard of mammography, but 274 (54.3%) had not. In Fig 4.1, 325 (64.4%) of respondents agreed with mammography is an effective method for the early diagnosis.

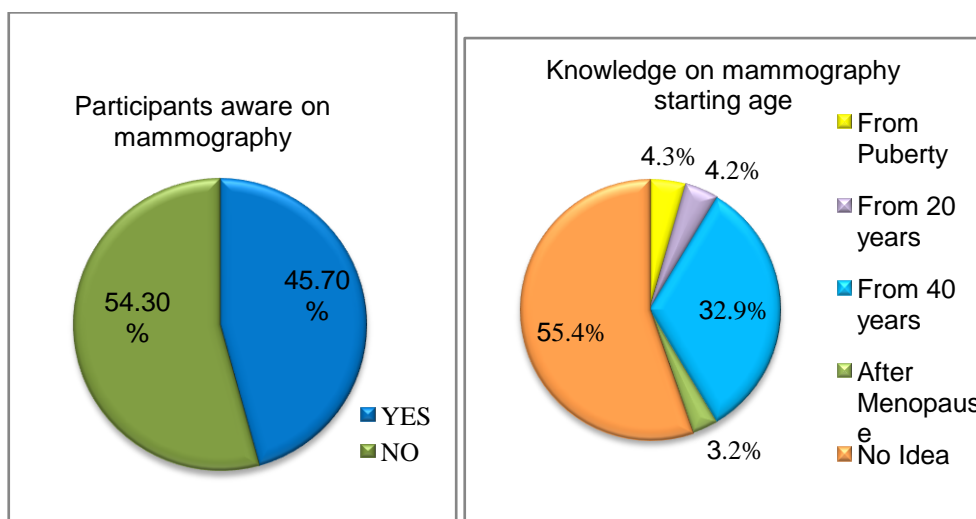


Fig.4: Participants aware on mammography Fig. 4.1: Knowledge on mammography starting age



Mean knowledge score for screening practice of breast cancer:

The following questionnaires were designed to the participants. There are a total of twenty-two questions in this section (22). Each accurate response received one point, while each incorrect response received zero points (0). The overall score ranged between (0-22). Respondents who received a score of 0-5 were regarded to have poor knowledge, those who received a score of 6-15 were considered to have fair knowledge, and those who received a score of 15-22 were considered to have good knowledge. Table No 1, show that 141 of the participants in this study had poor knowledge, 260 had fair knowledge, and 104 had good knowledge.

Age (yrs)	No. Of Participants	Poor (0 -5)	Fair (6-14)	Good (15-22)
Less than 20	22	7	15	0
21 to 30	109	14	51	44
31 to 40	122	39	58	25
41 to 50	122	39	59	24
More than 50	130	42	77	11
Total	505	141	260	104

TableNo1:Mean Knowledge Score for Screening Practice of Breast Cancer

One-way ANOVA was used for statistical analysis. ANOVA is one way to determine the differences in knowledge about early detection methods among women of all ages. The ANOVA test was used, and it revealed that statistically significant difference in knowledge of breast cancer screening practices between women of all ages. According to the findings, the age group 21-30 years had the highest knowledge and screening practices for breast cancer (mean=11.8165), followed by the age groups 31-40 years (mean=8.8279), and 41-50 years (mean=8.5902). Fig. 5 shows that the age group over 50 has the least awareness about screening methods, with a mean of (7.3692), followed by the age group under 20 with a mean of (6.1818).



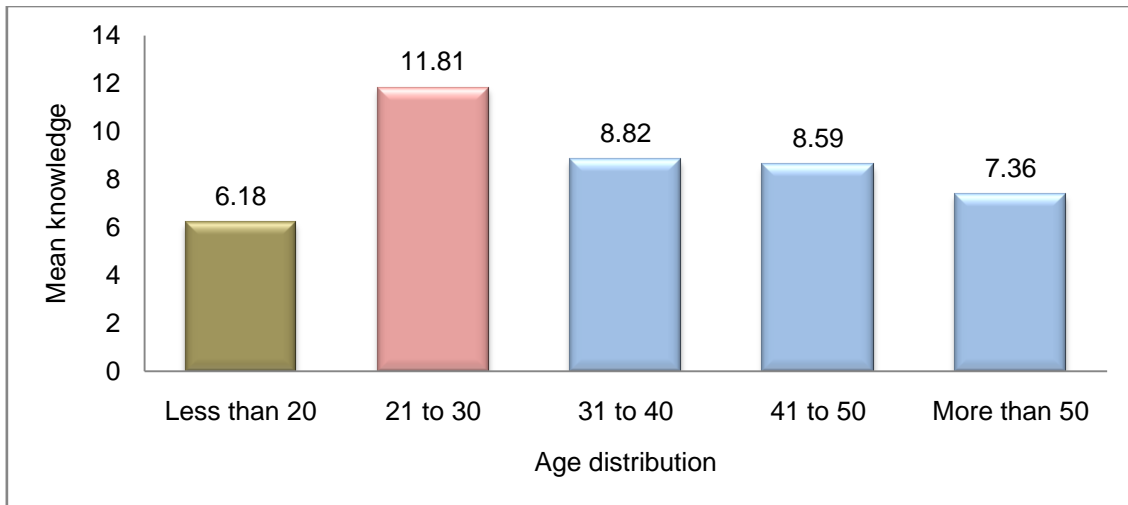


Fig.5: Mean knowledge score about screening practices for breast cancer

Knowledge about risk factors of breast cancer:

One of the most major risk factors is being a family history. Oral contraceptives are a risk for breast cancer, according to 290 (57.4%) and 318 (63%) respondents. Fig. 6 shows that 339 (67.1%) participants agreed that oral contraceptives are related to breast cancer, while 273 (54%) were unaware that the larger breast is related to breast cancer. Fig. 6.1 shows that 403 (79.8%) participants agreed that yoga/exercise can lower risk of developing breast cancer.

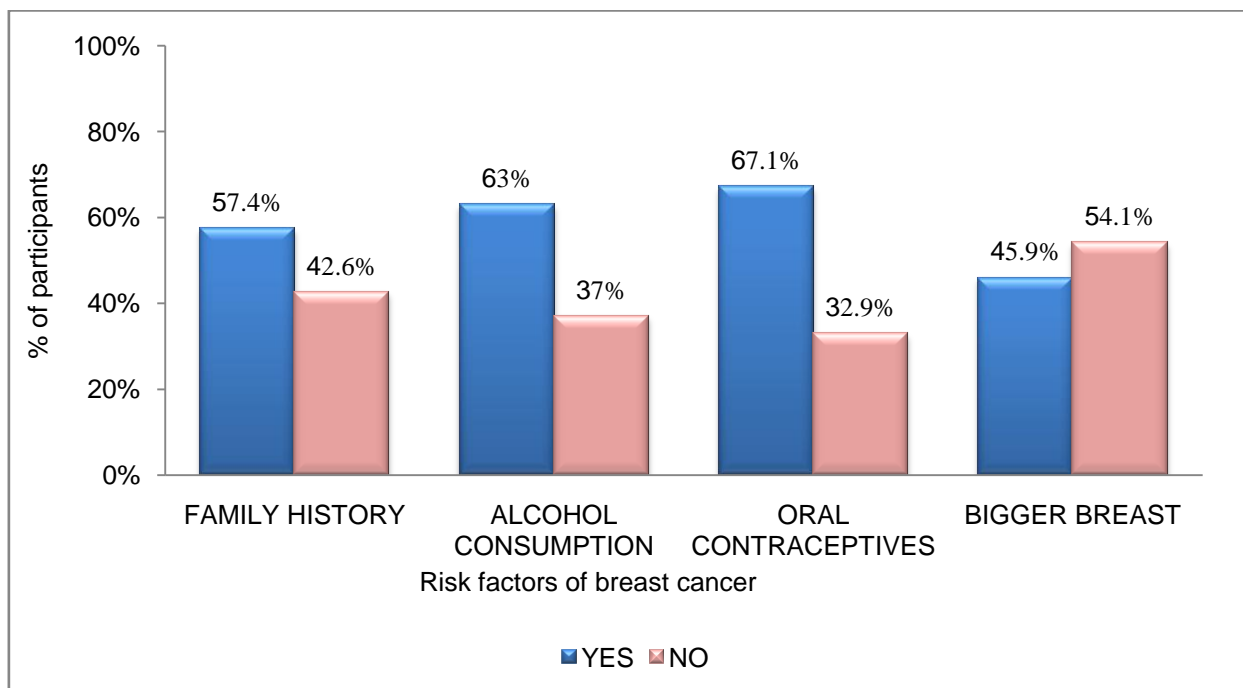


Fig.6: Knowledge about Risk factors of Breast cancer



Mean knowledge score about risk factors of breast cancer:

Family history, alcohol use, use of contraceptive pills, bigger breasts, breastfeeding, and exercise/yoga were used to assess participants' knowledge of risk factors for breast cancer. The participants were required to answer the following six (6) questions: with each accurate response receiving one (1) point and each incorrect response receiving zero points (0). The overall score ranged between (0-6). Respondents with a score of 0-1 were regarded to have low knowledge, those with a score of 2-3 were considered to have fair knowledge, and those with a score of 4-6 were considered to have good knowledge. Table No: 2 show that 81 of the participants in this study had low knowledge, 115 had fair knowledge, and 309 had good knowledge.

Age (yrs)	No. Of Participants	Poor (0 -1)	Fair (2-3)	Good (4-6)
Less than 20	22	3	13	6
21 to 30	109	12	19	78
31 to 40	122	16	22	84
41 to 50	122	30	22	70
More than 50	130	20	39	71
Total	505	81	115	309

Table No2: Mean Knowledge Score for Risk Factors of Breast Cancer

One way ANOVA was used to perform the statistical analysis. ANOVA is one way to determine the differences in breast cancer knowledge risk factors across women at different age. The ANOVA test was used, and it revealed that all age groups of women have statistically significant differences in their knowledge of breast screening. According to this study, the age group 21-30 years had the most knowledge of breast cancer risk factors (mean= 4.367), followed by 31-40 years (mean= 4.0984), 41-50 years (mean= 3.4), and more than 50 years (mean= 3.4846). Fig. 7 represents the age group of less than 20 (mean=2.8182) as having the least awareness of breast cancer risk factors.



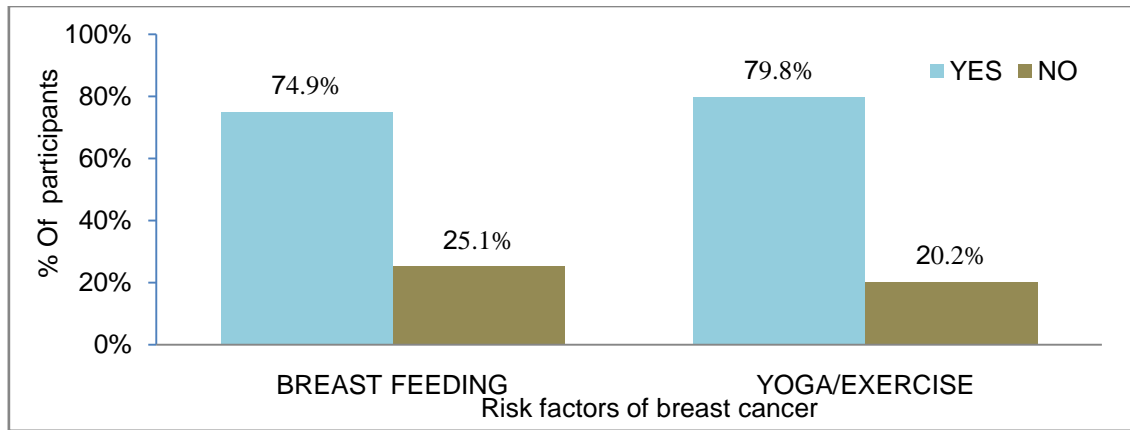


Fig.6.1: Knowledge about Risk factors of breast cancer

DISCUSSION

Breast cancer develops in the lining cells (epithelium) of the ducts (85%) or lobules (15%) of the glandular tissue of the breast, according to the World Health Organization.³ As the most prevalent cancer in the world today, breast cancer continues to be a serious public health concern.¹⁵ For the early detection and best treatment of breast cancer, knowledge and awareness are essential.¹⁶ Examining breast cancer knowledge and screening methods was the major goal of this study. The results showed that 56% of the participants had heard about breast self-examination, which is comparable to Nimir Amal et al.¹⁷ and Fandjo Linda et al.¹⁸ The study's findings demonstrate that 95.5% of participants knew that BSE was a helpful method for detecting breast cancer and the findings are similar to those of Nimir Amal et al.¹⁷ and Henna Humariya et al.¹⁶

The findings are similar to those of Getu Mikiyas et al.¹⁹, Rita Dadzi et al.²⁰, and Mruts Kalayu et al, who found that BSE practice is low among the common masses.²¹ This study found that 15.8% of participants perform BSE on a monthly basis, which is similar to the findings of studies at the University of Lagos²² and Getu Mikiyas et al.¹⁹ When compared to studies by Auwal Abubakar et al.²³ and Cal A et al.²⁴, this study shows that women's awareness of CBE is poor. In comparison to studies conducted by Njelita Ifeoma et al.²⁵ and Heena Humariya et al.¹⁶, this study found that 46.9% of participants believe CBE is an useful tool for the identification of breast cancer.

According to the study, 54.3 % were unaware about mammography, which is comparable to the findings of Olowokere E et al.²⁶ and Auwal Abubakar et al.²³ When compared to studies conducted by Njelita Ifeoma et al.²⁵ and Heena Humariya et al.¹⁶, the knowledge about when to start mammography is low. The P-value for knowledge and risk factors was found to be statistically



significant, which is comparable to the research carried out by Njelita Ifeoma et al.²⁵ and Heena Humariya et al.¹⁶.

The study's second objective was to evaluate women's awareness of breast cancer risk factors. 57.4 % of participants agreed that family history is an indicator of risk, which is similar to the findings of Auladi Sahar et al.²⁷ In a study conducted by Gebresillassie Begashaw et al., 67% believed that oral contraceptives are a danger for breast cancer.²⁸

Alcohol intake is a risk for breast cancer, according to 63 % of participants in the study, which is comparable to the findings of Al Mousa Dana et al.²⁹ and Amasha Hadayat et al.³⁰ The study showed that 54.1 % were unaware that having a bigger breast increases the cancer risk, which is similar to the findings of Auladi Sahar et al.²⁷ 74.9 % population believed that breastfeeding can reduce the risk of breast cancer, which is similar to the findings of Heidari Zahra et al.³¹ and Akyuz Aysel et al.³² According to the study, 79.8% of participants felt that yoga/exercise can lower the risk of breast cancer. Comparable investigations by Osei-Afriyie Sandra et al.³³ and Auladi Sahar et al.²⁷ found a similar incidence of breast cancer. Similar to a study by Omumu Vivian et al.³⁴, it was found that the P-value for breast cancer risk variables was statistically significant.

CONCLUSION

Overall, more than 50% of the study participants had a well developed knowledge of breast cancer risk factors. However, the study participants had fairly good knowledge on breast cancer screening methods. Only 25.3 % of women self-examined regular examination of their breasts, and only 8.5 % had Mammography throughout their life. The need of emphasizing breast screening modalities such as BSE, Mammography, and CBE among women in general is demonstrated in this study. Women must be encouraged to use mammography, which is still the gold standard for cancer detection. We distributed pamphlets in regional and common languages to the participants in order to raise awareness of risk factors and knowledge of breast cancer screening practices.

LIMITATIONS

The fact that the respondents had never met in person was one of the study's weaknesses. There's a possibility of misunderstanding the questions and respond incorrectly as an outcome. In addition, the study was conducted in a shorter period of time.



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