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Original Research Article

Breast cancer; awareness of breast cancer, self-breast examination and its practice in educated women

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ABSTRACT

Background: The incidence of breast cancer in India is showing an increasing trend and more patients are diagnosed with breast cancer at a younger age. The prognosis of breast cancer is better when it is diagnosed at an early stage and proper treatment started early. Breast self-examination (BSE) remains as an important inexpensive tool which help in detecting any breast abnormality and diagnosing breast cancer, especially in Indian scenario. This survey was conducted among the young ladies working or studying in a tertiary care centre in Mumbai to assess the awareness about breast cancer, BSE and its practice in educated women.
Methods: This is a cross sectional study conducted among 553 females studying and working in a tertiary care institute at Mumbai. A questionnaire was prepared and response was noted down and analysed statistically.
Results: According to our study even the educated women working in medical institute were not completely aware of the BSE, its practice and its importance in day-to-day life.
Conclusions: The awareness about breast cancer among students and staff was found to be good in this health care institute but most of them are not aware of proper method and interval of BSE. The main medium of information was audiovisual. The awareness programmes need to be more for encouraging people to do a BSE and take an early medical help.

Keywords: Breast cancer, Awareness, BSE, Early medical help

INTRODUCTION

Incidence of breast cancer is increasing globally and is a leading cause of death among women.[1-3] Incidence of breast cancer is showing an increasing trend in India. In the present scenario, roughly 1 in 26 women are expected to be diagnosed with breast cancer in their lifetime.[4]

Prevalence of breast carcinoma is more in urban population compared to rural population. The incidence among younger population is also increasing compared to older population. More and more younger women are being diagnosed with breast cancer.[5] In younger women these cancers are generally more aggressive and result in lower survival rates.[6] The 5-year survival rate reached to 85% with early detection whereas later detection decreased the survival rate to 56%.[7] The low survival rates in less developed countries can be attributed to the lack of early detection as well as inadequate diagnosis and treatment facilities. This demands for measures to ensure an early detection of breast cancer.

The reasons for late detection of breast cancer especially in rural population includes low awareness, presence of stigma, fear about the tests and the disease, gender inequity, lack of facilities for early screening, infrastructure, low literacy, and low socioeconomic status.[8] Recommended screening methods to reduce

breast cancer mortality and morbidity by diagnosing it at an early stage include BSE, clinical breast examination (CBE), and mammography.[9]

CBE and mammography require hospital visit and specialized equipment and expertise whereas BSE is an inexpensive tool that can be carried out by women.[10] BSE benefits women by making them familiar with both the appearance and the feel of their breast and detect any changes in their breasts as early as possible.[11] In the literature, it is stated that 90% of the times breast cancer is first noticed by the patient herself.[12] Several studies have shown that barriers to diagnosis and treatment can be addressed by increasing women's awareness of breast cancer.[13,14]

Although the value of BSE is controversial in countries which have national policies and regular screening programmes for early detection of breast cancer, it seems to be still relevant in countries like India.[15-17] The adolescent period is a time of rapid change and girls became more aware of their body and the changes happening within them. Teaching healthy habits like BSE can help empower women to take some control and responsibility over their health promotion.[18]

It benefits women in two ways: women become familiar with both the appearance and the feel of their breasts and detect any changes in their breasts as early as possible.[19] BSE makes women more "breast aware", which in turn may lead to an earlier diagnosis of breast cancer.[20] The rationale behind extending BSE practice as a screening test is the fact that breast cancer is frequently detected by women themselves without any other symptoms.[21] In Turkey, The Ministry of Health recommends BSE to increase awareness of breast cancer.[22]

Even though BSE is a simple, quick, and cost-free procedure, the practice of BSE is low and varies in different countries. A study from England by Philip et al.[23] reported that only 54% of the study population practiced BSE. In Nigeria, the practice of BSE ranged from 19% to 43.2%, and in India, it varied from 0 to 52%.[24-27] Several reasons like lack of time, awareness, lack of self-confidence and knowledge about the procedure, fear of possible discovery of a lump, social stigma are a few of the many reasons for not practicing BSE.[28]

Objective of this study is to assess awareness of breast cancer, BSE in young population and their willingness to approach a healthcare professional so that treatment can be offered at an early stage which can improve the prognosis in patients with carcinoma breast.

METHODS

A prospective cross-sectional study was conducted in 553 women attached to healthcare institute, Raigarh, Navi Mumbai from different sectors like medical, nursing, physiotherapy, dental and clerical staff, who were above age of 18 years. The study was done for period of 2 months after approval from ethics committee in 2018. A written informed consent was taken and study was started after obtaining approval from the institute ethics committee. Sample size was collected randomly from the women working in our institute and who were willing for the study. All the participants were given an information sheet which included all the details of the survey, a questionnaire (In English as all the participants could read and understand the language) containing questions related to BSE knowledge, duration and time of reporting to healthcare personnel. The questionnaire was a self-administered one. The format was of yes, no and don't know type. Those who marked as yes or no was considered as aware and not aware and those who gave answer as don't know were considered as not aware in the final interpretation. For analysis the participants were divided into medical and non-medical groups. Medical group comprised of medical students and junior staff from non-clinical departments, while in non-medical group dental, physiotherapy, nursing staff and students and clerical staff were included. The overall awareness as well as the awareness level between medical & non-medical participants were compared from the same data to see whether it is influenced by level of education. The data was collected and analysed using different statistical methods. The p value for the chi-square test is less than 0.05 which indicates that there exists significant association between response and groups. To find out strength of relationship between these variables we used symmetric measures Phi and Cramer's V coefficient which included p-value, and the results were obtained.

RESULTS

A total of 553 people participated in the survey of which 237 were from medical group and 316 was from non-medical group. The age distribution is given (Table 1). A maximum of 77.57% was from 18-25-year age group.

Table 1: Age distribution of medical and non-medical women.

Age (Years)	Medical	Non-medical	Total	Percent (%)
	Count	Count		
18-25	204	225	429	77.57
26-35	26	45	71	12.83
36-45	6	30	36	6.50
46-55	1	15	16	2.89
56-65	0	1	1	0.18

Among the 553 participants on an average 406 people were well aware of the common symptoms and signs and risk factors of breast cancer as asked in the questionnaire (Table 2). 96 people were not aware of it and 52 people gave answer do not know, which can be considered as not aware. The people who are well aware of symptoms signs

and risk factors of breast cancer were only 73.4% and 26.6 % were not aware of symptoms of breast cancer.

Table 2: Awareness of signs and symptoms of breast cancer and its risk factors.

Total	Yes	No	Don't know
553	406	96	52

A total of 463 (83.7%) people were aware of self-breast examination and 98 (17.7%) (Figure 1) people were not aware of BSE; since p value and chi square test were more than 0.05 phi and cramers V coefficient test were applied and it was found to be less than 0.1 which indicate that there is a non-significant association between the respondent type and their response to question.

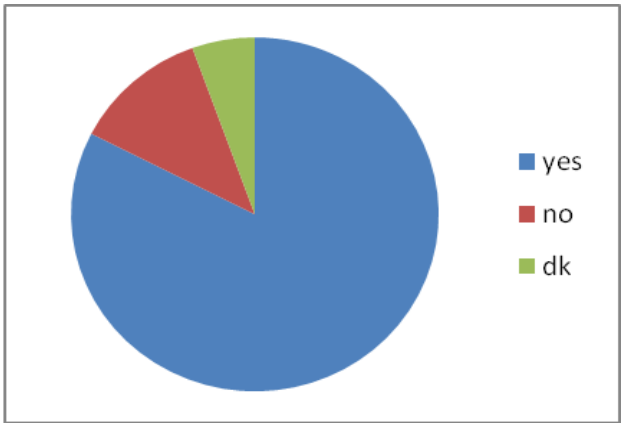

Figure 1: Distribution of awareness of BSE among women with yes, no and do not know criterion.

Among the 463 people who were aware of BSE 178 (38.4%) thought, it needs to be done every day, 86(18.6%) people thought it has to be done once a week, 135 (29%) thought it needs to be done once a month, 47 (10%) people thought it has to be done once a year and 17 (3.6%) were not aware of frequency or never done it (Figure 2).

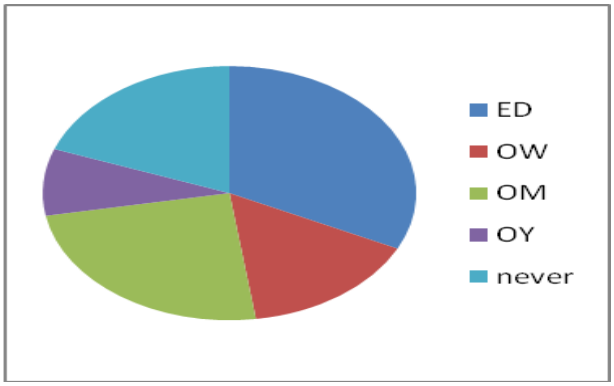

Figure 2: Distribution of frequency of BSE according to women whether; ED: every day, OW: once a week, OM: Once a month, OY: once a year and never.

Among 463 people who were aware of BSE 308 (66.5%) people told, they will report to a doctor immediately, 102 (22%) were ready to visit a doctor in a week, 28 (6%) were giving answer as within a month, 20 (4.3%) were ready to wait till the next visit to doctor and 5 (1%) (Figure 3) of them were not bothered about the lump and wouldn't visit a doctor for that.

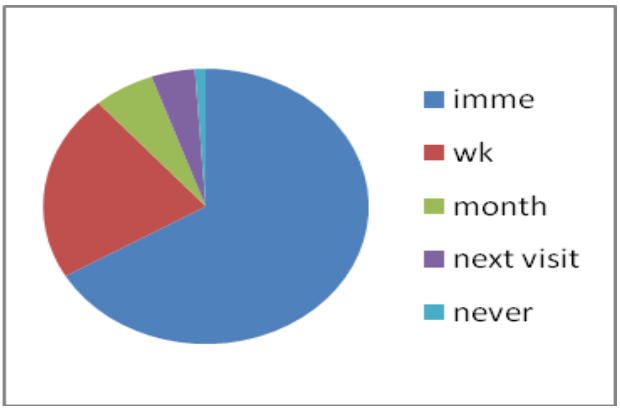

Figure 3: Distribution of time for visit to doctor after notice lump in breast by women on BSE; imme: immediately, wk: week, month, next visit or never visit a doctor until symptomatic.

DISCUSSION

With increasing incidence of breast cancer among ladies all over the world and in India with an increasing trend seen in younger population, there is a need for increased awareness about breast cancer and BSE which need to be taught at a younger age group so that girls become more aware of the changes in the breast during their life time and can report to a health care provider at the earliest if they notice any abnormality.

This survey was conducted in ladies working or studying in a healthcare institute. As they are coming from a larger cross section of community, if taught properly they can spread the message to their family, friends and their patients.

In this study the level of knowledge on breast cancer and BSE among educated working women in our institute was evaluated. It was found that the majority (67%) of the women had adequate knowledge regarding the risk factors, symptoms and treatment of breast cancer and BSE. In a study done by Ahmad et al, it was shown that women had poor knowledge regarding complex risk factors of breast.[7] Our study also showed that women with better level of education had better knowledge regarding breast cancer and BSE than women with low education status. This was concordant with the reports presented by other studies done by Yerpude et al and Yavari et al.[11,12] Since most of the women participated in this study are working women or students, they can be considered as coming from families of better socio-economic status and they have a better knowledge about

breast cancer, and it's in agreement with the study done by Khokher et al.[13]

The overall knowledge of BSE in study population was found to be 83.7%. This shows a better knowledge compared to a study by Yadav and Jaroli among Indian college-going students in Rajasthan where 28% examined their breasts rarely or never.[17]

In our study only a 29% of the females knew the exact frequency of BSE and rest were not aware of the details of self-breast examination. This study is comparable to studies done by Milaat who reported that 14.4% of secondary-school female nursing students had knowledge about the frequency of BSE and that 7.1% of the students had knowledge about appropriate time for BSE.[16]

In our study we also evaluated the willingness about when to report to the doctor and to our surprise maximum number of women thought of reporting immediately (66.5%) which showed a good sense of responsibility towards breast cancer awareness and self-care among the young women.

It's evident from different studies done on breast cancer awareness that there has been positive association between breast cancer and BSE awareness and educational status, including the present study.[13-16]

However, it is also to be noted that the awareness about cancer being curable if detected has to be given more importance since nearly half of the women think breast cancer to be incurable. This is probably due to the fact that very few women had seen others who survived the disease and leading a normal life. Hence the importance of improving knowledge regarding the breast cancer, BSE and early medical help to diagnose it early and treat the disease.

Limitations

A multicentric study would have yielded a better result as compared to single center study.

CONCLUSION

The incidence of breast cancer is increasing especially in younger population. in countries where healthcare system is advanced, people undergo regular breast examination and mammography which help in early diagnosis. But in a country like India where there is no facility available to each and every person of the society, BSE can help empower women to take some control and responsibility over their health promotion.

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