



BREAST CANCER SCREENING: KNOWLEDGE, ATTITUDE AND BEHAVIOUR OF WOMEN FROM URBAN COMMUNITY.

Community Medicine

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ABSTRACT

Background: To reduce morbidity and mortality from breast cancer, early diagnosis and treatment is of great importance. For that purpose women should have awareness about the disease and also should be able to apply knowledge for prevention of the disease.

Objectives: The study was conducted in view of understanding knowledge and attitude of urban women and to know their behaviour regarding breast cancer screening.

Materials and Methods: The study was community based, cross-sectional study conducted in a urban slum and non-slum area which is a field practice area of a Medical college. Women above 30 years of age were taken. Breast cancer screening and awareness programme is undertaken by the Dept. of Community Medicine in the field practice area since last two years.

Results: More than 50% of the women were found to have correct knowledge, favourable attitude and positive behaviour. More than half of the women were doing CBE and SBE but not all were doing it regularly. It was seen that knowledge was significantly associated with practice.

Conclusion: The study highlights the need for increasing awareness by reinforcing health education. Use of IEC activities and involvement of key persons in the area will be helpful.

KEYWORDS

Breast cancer screening, knowledge, attitude and behaviour.

INTRODUCTION

Breast cancer is the most common female cancer worldwide representing nearly a quarter (23%) of all cancers in women. The global burden of breast cancer is expected to cross 2 million by the year 2030, with growing proportions from developing countries.^[1] The burden of breast cancer is increasing in both developed and developing countries; the peak occurrence of breast cancer in developed countries is above the age of 50 years of age whereas in India it is above the age of 40 years and in India the age standardized incidence rate of breast cancer varies between 9 to 32 per 1,00,000 women.^[2]

With industrialization and urban development, delayed and reduced fertility, increasing longevity, and Westernization of lifestyle, the incidence of breast cancer is rising steadily, particularly in younger birth cohorts, and it is likely to soon overtake cervical cancer as the most common malignancy among Indian women.^[3]

Statistics also show that locally advanced breast cancer constitutes more than 50-70% of patients presenting for treatment and lack of awareness regarding the disease coupled with non-affordability or non-availability of facilities for early detection and treatment are some of the major determinants of this.^[4] Undoubtedly breast cancer will become an epidemic in India in another 10 years, if the current status of detection continues and as there is no exact aetiological agent for breast cancer, early diagnosis and treatment is of paramount importance in improving the morbidity and mortality status.^[4] With the rising breast cancer incidence in India and disproportionately higher mortality, it is essential to understand the level of cancer literacy, especially since the average age at diagnosis is 10 years younger than women in Western countries, and also an assessment of existing levels of cancer awareness is a pre-requisite for planning comprehensive health programmes, early detection and treatment campaigns, that effectively engage communities of women and men.^[1]

Although mammography is the preferred method of screening in Western countries, clinical breast examination (CBE) is an important means to diagnose symptomatic disease, and it is likely to be of use in the diagnosis of asymptomatic disease in areas where mammography is unavailable and unaffordable.^[3] Although CBE can't detect very small tumors, it has the potential to improve the stage at diagnosis in contexts where the majority of discovered tumors are stage 3 and 4.^[3] Thus, for early diagnosis and treatment of breast cancer, it is important that women should be aware of breast cancer, its causes, symptoms and prevention aspects i.e. Self Breast Examination (SBE), CBE and

Mammography. She should be able to apply the knowledge for prevention of the disease.

A baseline study in the research project area indicated very poor knowledge and practice among women regarding breast cancer. So, the objectives of this study were 1. To understand the current status of knowledge and attitude of women and 2. To know their behaviour regarding breast cancer screening.

MATERIALS AND METHODS

The study was community based, cross-sectional study conducted in an urban slum and non-slum area, which is a field practice area of a Medical college in the city of Mumbai, which caters to a population of around 43000.

Breast cancer screening and awareness programme is undertaken by the Dept. of Community Medicine in the field practice area since last two years. Three Outreach workers (ORWs) are appointed and trained by faculty members from the department to create awareness on breast cancer. All the ORWs reside in the field practice area and have been assigned a specified area near to their residence so as to have a better rapport. They provide health education to these women by house-to-house visit and motivate them for SBE, CBE and Mammography. SBE technique is taught to women by ORWs in community using flipcharts and demonstrated by doctors when they come for CBE. Women are motivated to do monthly SBE. So, monthly SBE is taken as regular SBE and SBE taken irregular if otherwise. Under the programme, CBE is advisable once in three years for women below 40 years and yearly for women above 40 years. This criteria has been taken to define regular and irregular CBE i.e. regular means as per above recommended norms, otherwise it is irregular. Women above 40 years of age are considered to be eligible for mammography. CBE is provided free of cost in clinic. Also free mammography camps are conducted 2-3 times per year.

Women above 30 years of age were recruited for the study, as they are the main beneficiaries of the programme. Sample size of 384 was calculated by taking prevalence of knowledge as 50% (p=50%) at 95% confidence level and 5% absolute error. A total of 400 women were interviewed. Total duration of study was 4 months from February to May 2016.

Simple random sampling from the list of beneficiaries was used to select the women for the study. If the house was locked or woman

refused/ not available for the interview, then the next woman from the list was approached. Pre-tested and pre-designed questionnaire was used to know their socio-economic data, their knowledge, attitude and behaviour. For knowledge criteria, at least one correct risk factor/symptom is taken as correct response. For attitude criteria, appropriate/ positive attitude is taken as favourable attitude otherwise taken as not favourable. Number of women who didn't respond for attitude was considered in 'Don't know' category.

Written informed consent was obtained from the women prior to interview after explaining the nature and purpose of study. Confidentiality was maintained throughout the study. Institutional Ethics committee approval was taken.

Statistics

The detailed data was entered into the Microsoft Excel sheets and presentation is done with the help of tables and figures. Statistical analysis was done with the help of percentages and chi-square test. For statistical test, p value of less than < 0.01 was considered as highly significant.

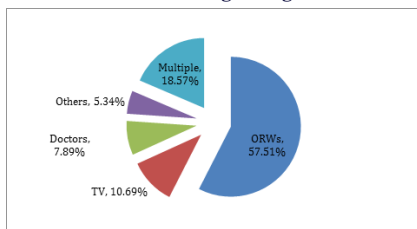
RESULTS

Maximum women belonged to age group of 30-39 i.e. 38.75%. Majority of women had secondary (completed 10th standard) level of education. 7% of women were graduates. Maximum women were belonging to class III (38.25%) socio-economic status using BG Prasad's classification^[5] followed by class II (31%). 79.25% women were married, 16% were widow, and 1.75% were separated from their husbands, making total of 97% ever married women. 3% were unmarried. Majority of women (87%) were housewives and others (13%) were in occupation like bidi workers, housemaids, tailors etc. (Table 1)

	Classification	Frequency (%)
Age	30-39	155 (38.75%)
	40-49	100 (25%)
	50-59	76 (19%)
	60-69	47 (11.75%)
	70-79	16 (4%)
	80-89	6 (1.5%)
Level of education	Illiterate	67 (16.75%)
	Primary	78 (19.5%)
	Secondary	191 (47.75%)
	HSC	36 (9%)
	Graduate and above	28 (7%)
Socio-economic status^[5]	Class I	33 (8.25%)
	Class II	124 (31%)
	Class III	153 (38.25%)
	Class IV	75 (18.75%)
	Class V	15 (3.75%)
Marital status	Ever married	388 (97%)
	Never married	12 (3%)
Occupation	Housewives	348 (87%)
	Other	52 (13%)

When asked whether you have heard of breast cancer, 98.25% (393) said yes and 1.75% (7) said no. Out of 393 women, source of information was outreach workers from the department in 57.51% (226) women followed by Television (10.69%), doctors (7.89%) and others (family members, friends, newspaper etc.) in 5.34% (Figure 1). Percentage of women who had more than one source of information was 18.57%. Number of women who were visited by our ORWs was 82.25% (329) and 17.75% (71) were never visited by ORW. When asked regarding whether you know someone who have/had breast cancer, 15.5% (62) responded as yes; and 17 (4.25%) women have/ had breast cancer in their family members.

Figure 1: Source of information regarding breast cancer (n=393)



Though more than 50% of the women have undergone CBE at least once, the percentage of women doing regular CBE is less i.e. 12.25% only. For the practice of SBE component though 54% women were doing SBE, only 25% women were doing it regularly (Table 2). Only 44.25% (177) women heard of Mammography. Amongst 145 women who were eligible for mammography, 35.17% (51) did it at least once (Figure 2). Only 6.75% women had breast related illnesses in past.

Table 2: Practice of CBE and SBE among women (n=400)

Practice	Regularly	Irregularly	Never done
CBE	49 (12.25%)	175 (43.75%)	176 (44%)
SBE	116 (25%)	100 (29%)	184 (46%)

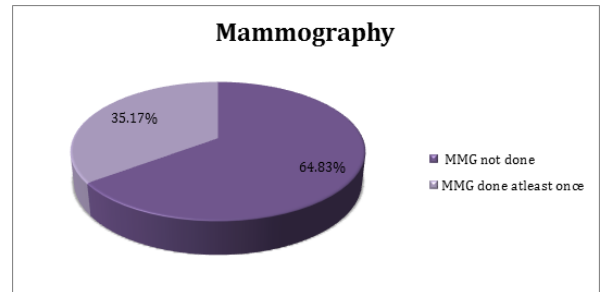


Figure 2: Practice of women regarding mammography (MMG) (n=145)

It was seen that, knowledge of women regarding risk factors and symptoms were associated with practice of doing CBE and it was statistically highly significant. Women who had done CBE at least once had correct knowledge of risk factors and symptoms. (Table 3)

Table 3: Association between practice of CBE and knowledge of women (n=400)

	CBE Done (n=224)	Not done (n=176)	Total	P value
Correct response for risk factors	137 (34.25%)	79 (19.75%)	216 (54%)	0.001
Correct response for Symptoms	172 (43%)	80 (20%)	252 (63%)	0.000

When asked about whether every lump in breast is cancer, most of the women said it may or may not be a cancer. Favourable attitude was seen in women regarding importance of CBE, benefit of early detection, treatability of disease and use of health education as well. Majority of the women do not have favourable attitude regarding importance of SBE and mammography or they do not know about it. (Table 4)

Table 4: Attitude of women regarding breast cancer

Attitude	Favourable	Not favourable	Don't know
Every lump is a breast cancer	357 (89.25%)	43 (10.75%)	0 (0%)
Importance of SBE	196 (49%)	196 (49%)	8 (2%)
Importance of CBE	343 (85.75%)	6 (1.5%)	51 (12.75%)
Importance of Mammography	158 (39.5%)	6 (1.5%)	236 (59%)
Benefit of early detection	349 (87.25%)	38 (9.5%)	13 (3.25%)
Treatable if detected early	342 (85.5%)	35 (8.75%)	23 (5.75%)
Regarding use of Health education	379 (94.75%)	8 (2%)	13 (3.25%)

DISCUSSION

In present study, maximum women belonged to age group of 30-39. Majority of women had secondary (completed 10th standard) level of education. Maximum women were belonging to class III (38.25%) socio-economic status followed by class II (31%). In the present study, 97% women were ever married and 3% were unmarried. Majority of women (87%) were housewives and others (13%) were in occupation like bidi worker, housemaid, tailor etc. In the present study, 98.25% have heard of breast cancer. Major source of information was outreach workers from the department (57.51%) followed by Television (10.69%), and doctors (7.89%). In the present study, 54% and 63%

women cited correct response for risk factors and symptoms respectively. It was seen that more than 50% of women have undergone CBE at least once but only 12.25% were doing it regularly. For the practice of SBE component though 54% women were doing SBE, but 25% women were doing it regularly. Only 44.25% women heard of Mammography and among eligible, 35.17% did it at least once. Knowledge of women regarding risk factors and symptoms were associated with practice of doing CBE and it was statistically highly significant.

Demographic factors like age, education, socioeconomic status, marriage status were similar to other studies.^[6,7,8] In the present study, 98.25% have heard of breast cancer, similar to the finding in a study by P Somdatta.^[7] Major source of information was outreach workers from the department (57.51%) followed by Television (10.69%), and doctors (7.89%). One-fifth of the women had more than one source of information. Though majority of the women have been visited by an ORW, almost one-fifth of the women were never ever visited by ORW, which could be due to the constant migration in this slum area. In a study done in rural Kerala,^[6] almost one third of the respondents cited health professionals and about half of the respondents cited audiovisual media as the source of information regarding breast cancer. This difference in source of awareness could be due to the ongoing project. In the present study, 15.5% women know someone who have/had breast cancer. The proportion of women who reported breast cancer in their family members was 4.25% whereas in a study in North India,^[8] 2.7% reported family history of breast cancer. In the present study, 54% and 63% women cited correct response for risk factors and symptoms respectively. Main risk factors cited by women were addictions (19%), previous lump (14.25%), absence of lactation (9.5%), obesity/fatty food (4.75%), heredity (3%). Other reasons cited were oral contraceptive pills, breast cancer in family, unhygienic conditions, stress, late marriage etc. In a study conducted in Kerala,^[6] the causes or risk factors of breast cancer were reported as absence of breast feeding (9.8%), consumption of fatty foods (4.6%), hereditary (2.6%) and infertility (0.2%) and an overwhelming 82.1% said that they didn't know. In another study by P. Somdatta,^[7] only 35% of the women mentioned any of the risk factors of breast cancer. Regarding symptoms of breast cancer, in present study, majority (54.5%) correctly said about presence of lump. Other symptoms were nipple discharge/ retraction (6.5%), lymph nodes enlargement, weight loss, weakness, skin changes etc. Similarly in other studies,^[4,6,7,8] around 50-60% women were aware of symptoms of breast cancer mainly lump, nipple discharge, pain, skin changes etc.

It was seen that more than 50% of women have undergone CBE at least once but still the percentage of women doing regular CBE is less i.e. 12.25%. For the practice of SBE component though 54% women were doing SBE, but 25% women were doing it regularly. Only 44.25% women heard of Mammography and among eligible, 35.17% did it at least once. The findings are suggesting that there is still a lot of motivation required for these women to undergo these screening methods. Similarly, in study in Rajasthan,^[4] around fifty percent of the women reported that they checked their breasts on a weekly or monthly basis (52%), but one third (28%) claimed that they rarely or never checked their breasts for changes and also 19% were aware of mammography. In developing countries owing to resource crunch and diagnostic facilities being too costly, breast self-examination is an effective and economic preventive mode and hence, early detection and screening by self-examination has to be generated and promoted.^[4] In other study,^[6] almost half (46.6%) reported to have done screening tests like BSE and or Mammography and out of the 46.6% who had done screening tests 97.3% had done Breast Self Examination only, 3.4% had done Mammography and 4.7% had done both and two thirds of the women said that they do BSE only sometimes. Similar evidence of lack of awareness was seen in other studies.^[7,8] In contrast to present study, in a study done on American Asian Indian women,^[9] it was found that 40.7% were doing monthly self breast exam; 61.3% of 40 and older women & 70% of 50 and older women, reported having had a mammogram within the past 12 months which may be due to awareness programme in the area.

In present study, it was seen that, knowledge of women regarding risk factors and symptoms were associated with practice of doing CBE and it was statistically highly significant. It shows that, knowledge and practice increase with each other i.e. if one increases, other will automatically increase. Most of the women had positive attitude regarding breast cancer and its screening but women were still in doubt

or having unfavourable attitude regarding importance of SBE and mammography. It indicates lack of knowledge regarding some aspects, which needs to be reinforced. A baseline study (n=100) was conducted in the project area at the start of the project to check knowledge and practice of women regarding breast cancer. It showed very poor knowledge and practice and therefore lot of emphasis was given to health education. When baseline data from study project, which was from two years back compared to present study, it was found out that awareness and practice has significantly improved. Breast cancer awareness increased from 5.88% to 98.25%, practice of CBE increased from 4.41% to 56% and practice of mammography also significantly improved from 2.65% to 35.71%. This shows the effectiveness and impact of the awareness programme run by the department, which led to increased awareness and positive behaviour in these women. In a study,^[10] it was observed that no woman was practicing BSE (Breast Self Examination) at the start of study and it increased to 6.4% in the first post-test and to 11.6% in the second post test after an educational intervention by trained female health workers. Also it was stated that there was a high acceptance of health workers as educators, probably due to the better rapport they have with the community women similar to our study. In a randomized controlled trial by Tata Memorial Hospital^[11] which compares the efficacy of health education and Clinical Breast Examination (CBE) provided by trained primary health care workers with just health education, shows a good compliance-to screening rate (70%). In other study done in Madhya Pradesh,^[12] due to the effect of health education imparted to the respondents, the knowledge of BSE increased from 16% to 59% i.e. 43% (3.6 times) increase in knowledge component. A total of 53.5% respondents were regularly practicing BSE after intervention as compared to none before intervention.

There is no national or regional breast cancer-screening program in India. Under the various public health initiatives, like 'Health for All' and the National Rural Health Mission, there has been emphasis on breast awareness and breast self-examination. It is a first step towards creating the groundwork for India's breast cancer-screening program. It is felt that breast self-examination and clinical examination are perhaps the right tools for screening the huge population of India, but no credible data is available today to base these views on.^[13] The needs of the coming decades would perhaps be better served by small community cancer centers, which are cost-effective and can manage most cancer patients in their own localities.^[13] Another study quoted^[14] less than half of the women were aware of BC detection methods but prevalence of practice was much lower especially CBE or mammography and there is an urgent need to increase the awareness of women regarding BC and BSE so that BSE may become a routine practice among women.

Strength of the present study being the improvements based on the study findings can be immediately implemented in the research area, as the project is ongoing. Limitation of the study being the findings can't be generalized to general population.

CONCLUSION

It is felt that in the present study, improvements can be done in the existing programme to make it more successful. The study highlights the need for increasing awareness by reinforcing health education. There should be more emphasis on motivating these women to undergo screening tests for breast cancer as per recommended norms. For favourable attitude and behaviour change, IEC activities using audio-visual media should be carried out in community along with routine awareness campaign. Involving key stakeholders and private practitioners in the area will also be useful. Use of mass media like local TV channel, newspaper and radio should be beneficial to create awareness.

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Declarations

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Ethical approval: Taken

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