

Original Article**A study on awareness of Breast Carcinoma amongst the women aged 15 years and above in Urban slums of Turbhe, Navi Mumbai**

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ABSTRACT

Background: Breast cancer is second most important cancer among Indian women. In India, the number of new breast cancer cases is about 115,000 per year. Although risk factors are not much prevalent as in western countries, incidence rate is increasing in India. Breast cancer awareness is an effort to raise awareness and reduce the stigma of breast cancer through education on symptoms and treatment.

Objectives: Present study has the objective to assess the level of awareness about Carcinoma Breast and to study the knowledge and practice regarding screening methods of breast carcinoma

Material & Methods: A cross sectional study was conducted among 160 women aged 15 years & above by simple random sampling. Pretested preformed questionnaire was used. Verbal consent was taken prior to interview. Data analysis was done by SPSS version 20 & MS Office Excel 2007.

Results: 58.7% women had no knowledge regarding breast carcinoma. 93.12% women had no knowledge regarding risk factors of it. Only 8 women had knowledge about Breast Self Examination and amongst them only 2 practice it. Only 2 women had knowledge about mammography and MRI as screening method.

Conclusion: Majority of women had no knowledge regarding Risk factors & Screening methods of Breast Ca. Education has positive impact on knowledge of symptoms of breast carcinoma.

Keywords: breast carcinoma, breast self examination, screening methods

INTRODUCTION

The term “breast cancer” refers to a malignant tumour that has developed from cells in the breast. Breast cancer is second most important cancer among Indian women. In India, the number of new breast cancer cases is about 115,000 per year and this is expected to rise to 250,000 new cases per year by 2015. (diseases-conditions, 2012)

The incidence rates are higher in industrialized and more affluent countries probably as a result of the availability of early cancer screening programs that detect early invasive cancer some of which would have progressed to the late stage of the disease. (Parkin M.D., Bray, F, Frelay J., Pisani P., 2005)

The absolute number of new cancer cases is increasing rapidly, due to growth in the size of the

population and increase in the proportion of elderly persons as a result of improved life expectancy following control of communicable diseases. The burden of breast cancer is increasing in both developed and developing countries, and in many of the regions of the world, it is now the most frequently occurring malignant disease in women and comprises 18% of all female cancer.

The peak occurrence of breast cancer in developed countries is above the age of 50 years, as compared to India, where it occurs in a younger age group, about a decade earlier than their western counterparts.

Breast cancer awareness is an effort to raise awareness and reduce the stigma of breast cancer through education on symptoms and treatment. Increased awareness has increased the

number of women receiving mammograms, the number of breast cancers detected, and the number of women receiving biopsies. (breast cancer awareness, 2013)

By increasing public health awareness activities & use of screening programmes, we can detect the disease early. That's how these types of preventive services should be promoted. Hence present study has been done to quantify various aspects of awareness of carcinoma breast.

OBJECTIVES

- 1) To assess the level of awareness about Carcinoma Breast.
- 2) To study the knowledge and practice regarding screening methods of breast carcinoma.

MATERIAL & METHODS

A community based, cross sectional study was conducted during May-August 2013, in urban slums of Turbhe, Navi Mumbai, Maharashtra. The study population comprised of women aged 15 years and above residing in the study area. Total 160 women were selected from the community by simple random sampling method.

Sample size calculation

Fixed Scenario Elements	
Distribution	Normal
Method	Exact
Standard Deviation	2.8
Group 1	1
Group 2	2
Number of Sides	2
Null Difference	0
Alpha	0.05

Computed N Total				
Index	Mean Diff	Nominal Power	Actual Power	N Total
1	1.0	0.80	0.800	279
2	1.0	0.85	0.853	321
3	1.0	0.90	0.902	375

Computed N Total				
Index	Mean Diff	Nominal Power	Actual Power	N Total
4	1.5	0.80	0.803	126
5	1.5	0.85	0.853	144
6	1.5	0.90	0.902	168
7	2.0	0.80	0.804	72
8	2.0	0.85	0.862	84
9	2.0	0.90	0.904	96

For the above sample size calculation, the mean difference is 1.5 and standard deviation 2.8 of knowledge of breast cancer. Here using power value 90 % (actual power 90.2%) and level of significant 5% .Thus the sample size for this study 168. Using statistical software = SAS 9.1.3 For ref. article (Semarya Berhe Lemlem, 2013)

8 women amongst sample size of 168 didn't response, so the ultimate sample size comes to be 160.

A pretested preformed questionnaire was used for data collection by interviewing the women from each household by house to house survey. Informed consent of the participants was taken verbally before the interview.

Data analysis was done by SPSS version 20 & MS office excel 2007. The chi square test has been applied wherever required.

How to Do Breast Self-Examination

1. While standing in front of a mirror, look at the breasts. The breasts normally differ slightly in size. Look for changes in the size difference between the breasts and changes in the nipple, such as turning inward (an inverted nipple) or a discharge. Look for puckering or dimpling.



2. Watching closely in the mirror, clasp the hands behind the head and press them against the head. This position helps make subtle changes caused by



cancer more noticeable. Look for changes in the shape and contour of the breasts, especially in the lower part of the breasts.

- Place the hands firmly on the hips and bend slightly toward the mirror, pressing the shoulders and elbows forward. Again, look for changes in shape and contour.



Many women do the next part of the examination in the shower because the hand moves easily over wet, slippery skin.

- Raise the left arm. Using three or four fingers of the right hand, probe the left breast thoroughly with the flat part of the fingers. Moving the fingers in small circles around the breast, begin at the nipple and gradually move outward. Press gently but firmly, feeling for any unusual lump or mass under the skin. Be sure to check the whole breast. Also, carefully probe the armpit and the area between the breast and armpit for lumps.



outward. Press gently but firmly, feeling for any unusual lump or mass under the skin. Be sure to check the whole breast. Also, carefully probe the armpit and the area between the breast and armpit for lumps.

- Squeeze the left nipple gently and look for a discharge. (See a doctor if a discharge appears at any time of the month, regardless of whether it happens during breast self-examination.)



Repeat steps 4 and 5 for the right breast, raising the right arm and using the left hand.

- Lie flat on the back with a pillow or folded towel under the left shoulder and with the left arm overhead. This position flattens the



breast and makes it easier to examine. Examine the breast as in steps 4 and 5. Repeat for the right breast.

A woman should repeat this procedure at the same time each month. For menstruating women, 2 or 3 days after their period ends is a good time because the breasts are less likely to be tender and swollen. Postmenopausal women may choose any day of the month that is easy to remember, such as the first. (5)

RESULTS

Table 1 : Socio demographic characteristics of the study population

Characteristic	Frequency	(%)
AGE GROUP		
15-20 years	7	4.4
21-30 years	57	35.6
31-40 years	45	28.1
41-50 years	36	22.5
More than 50 years	15	9.4
MARITAL STATUS		
Married	152	95
Unmarried	5	3.1
Widow	3	1.9
EDUCATION		
Illiterate	54	33.8
Primary	73	45.6
Secondary	25	15.6
High school	6	3.8
Graduate	2	1.2
OCCUPATION		
Housewife	132	82.5
Labourer	21	13.1
Professional	7	4.4
RELIGION		
Hindu	132	82.5
Muslim	28	17.5

Table 1 shows the socio demographic characteristics of study population. The mean age of study participants was 36.34 years. Majority of the women were in age group of 20-30 years (35.6%). Regarding the marital status, majority (95%) of the women were married. Looking into the educational status of the study group, 45.6% women are studied up to primary school. Only 1.2 % women were educated graduate and above, while one third (33.8%) women were illiterate. The majority of women were housewives (82.5%). Only 4.4% were professionally working.

Chart 1: Source of knowledge of Carcinoma Breast amongst the women

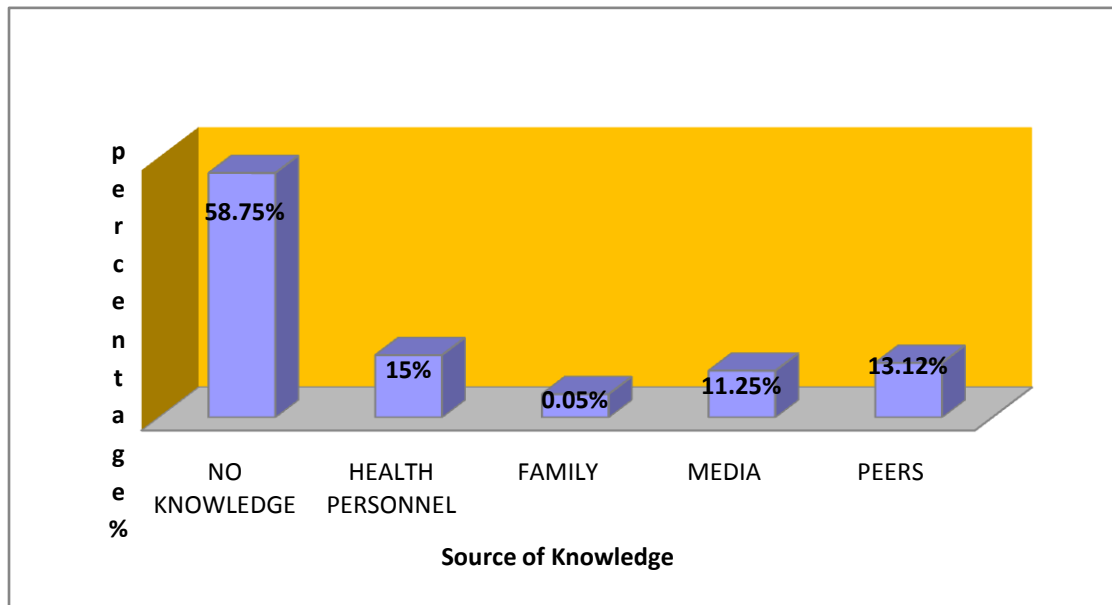
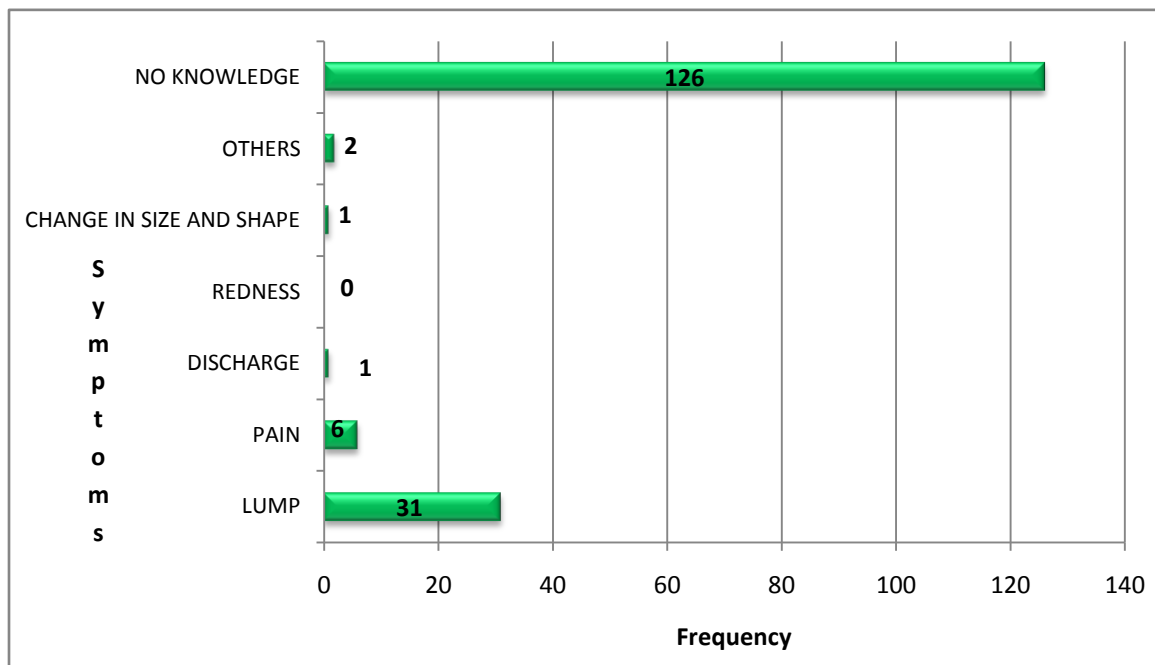


Chart 2 : Number of women having knowledge of symptoms



Majority of them are Hindus (132) & rest were Muslims (28).

Chart 1 shows the source of knowledge for the breast carcinoma. Almost 6 in 10 women did not have any knowledge regarding breast carcinoma (58.75%).

Health personnel have come to be the main source of information for them (15%). Other important sources are peers (13.12%), media (11.25%) & family members & relatives (0.05%).

Among the women interviewed, only 3 individuals provided with a family history of breast cancer; whereas none of the females presented with a history of breast cancer or any other cancer in self.

Very few women (14) were in the post menopausal age group among which only 1 was taking Hormone Replacement Therapy while the rest were not on any such treatment.

93.1% women had no knowledge regarding risk factors of carcinoma breast. Only 3 women mentioned diet as risk factor of breast Carcinoma. 6 women said that increasing age is a risk factor while 3 women said oral contraceptive pills a risk factor for breast carcinoma. No one mentioned family history, genetics, obesity, breastfeeding history or other factors like HRT as a risk factor for development of breast carcinoma.

Thus most women (78.75%) had no knowledge regarding the symptoms of breast cancer. Only 19.36% women enumerated lump in breast as a symptom. While very few mentioned pain, discharge or change in shape of breast as a symptom. Not a single woman enumerated change in position or shape of nipple, skin puckering (dimpling), discharge from nipples as a symptom of breast carcinoma.

Only 8 women out of 160 knew about Breast Self Examination (BSE); among which, only 2 women practiced BSE. Also, only 2 women knew about screening techniques such as mammography and MRI. None of the women interviewed had any knowledge about complications of breast cancer.

3 women out of the total women knew about treatment of breast cancer as surgery. However, 11 women think that it is curable.

Table 2 shows that, in our study, education has positive impact on knowledge of symptoms of Ca. Breast. The association is statistically significant ($P < 0.001$), while education does not have a positive impact on knowledge of risk factors of Ca Breast. The association is statistically not significant. ($p=0.449$). Education also have positive impact on breast self examination with p value of 0.035, which is statistically significant.

Table 2: Association between women's knowledge regarding symptoms, risk factors and Breast Self Examination

Variable	Education of women			p value
	Illiterate+ Primary literate	Secondary & Above	Total	
Knowledge of symptoms				
Yes	19(11.87)	15(9.38)	34(21.25)	$P < 0.0001$ $X^2 = 14.55$ df = 1
No	108(67.5)	18(11.25)	126(78.75)	
Knowledge of Risk Factors				
Yes	7(4.37)	3(1.88)	10(6.25)	$P = 0.449$ $X^2 = 0.573$ df = 1
No	120(75)	30(18.75)	150(93.75)	
Knowledge regarding Breast Self Examination				
Yes	4(2.5)	4(2.5)	8(5)	$P = 0.035$ $X^2 = 4.439$ df = 1
No	123(76.87)	29(18.13)	152(95)	

Figures in parenthesis shows percentages

Table 3: Association between knowledge of risk factors and family history of Ca. breast

Family history of breast Ca	Knowledge of risk factors		Frequency (%)
	No (%)	Yes (%)	
No	148(92.5)	10(6.25)	158(98.75)
Yes	2(1.25)	0(0)	2(1.25)
Total	150(93.75)	10(6.25)	160(100)

$X^2 = 0.135$, df = 1, $p = 0.715$

In our study it was found that family history of breast carcinoma does not have any impact on women's knowledge regarding the breast carcinoma's symptoms, risk factors ($p=0.715$) or any techniques of screening the disease which has been tested by chi square test, which is statistically not significant.

DISCUSSION

The study revealed a major finding that knowledge of women regarding a disease is very poor.

Risk factors are important to know as the women can prevent the high risk factors by assessing their risk category, which can help in preventing the disease, while the symptoms of the disease help them to seek early care and for early diagnosis of disease. Regarding different aspects studied, knowledge of symptoms was in 21.25% & of risk factors was 6.9%.

Different types of screening methods are available amongst which breast self examination is best way for early detection, which is cost effective also. If women

are educated properly that how to examine their breast, it can be a best tool for screening the disease, but in our study, only 8(5%) women had knowledge regarding Breast self Examination. In a similar study done by Lemlem et al, 57.8% of study subjects were aware about the ca. breast and its screening methods. (Semarya Berhe Lemlem, 2013)

This knowledge level is poor and is comparable to a similar study in Nigeria among school teachers, where only 27% of the participants were able to identify three risk factors correctly (Odusanya o.o., 2011)

As the source of knowledge is also very important, majority of women came to know by health personnel. So health personnel should be trained properly about signs and symptoms of the disease. Media is a good way to spread awareness. Government should utilize good examples of famous personalities who have revived from the disease.

As education of women itself is a factor which can improve the knowledge, so emphasis should be laid on women literacy. Our study also found that it has positive effect on knowledge of disease.

CONCLUSION

The study concluded that awareness about the disease is very poor. Knowledge of symptoms, risk factors and different types of screening methods is very less. Though education has positive impact on knowledge of symptoms & breast self examination, it does not have any impact on knowledge of risk factors. Health personnel are the main source to provide knowledge & awareness. Knowledge regarding screening methods was poor & practice of screening methods was also less.

RECOMMENDATIONS

- Health education needs to be provided among all the women (aged>15 years) regarding the various aspects of breast cancer ranging from risk factors to the various modalities of treatment.
- Women who are at a high risk (e.g. those with a positive family history or past history) need to

be educated about BSE and encouraged to practice it routinely.

- All women (aged>15 years) in the community have to be educated for various screening methods.
- Women should be motivated for regular health check-ups by the family.

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