

# Knowledge, Attitude and Practices of Breast Cancer Screening Among Women

## in a Tertiary Care Hospital of a Developing World

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### ABSTRACT

**Objective:** To assess the knowledge, attitude and practices of women regarding breast cancer screening visiting Abbasi Shaheed Hospital.

**Study Design:** Descriptive / cross-sectional study.

**Place and Duration of Study:** This study was conducted at the Abbasi Shaheed Hospital Karachi from September 2015 to February 2016.

**Materials and Methods:** Data was collected from 433 women, 433 self-administered structured questionnaires were filled by women between the age of 20-70 years. Questions related to breast screening knowledge, signs and symptoms of breast cancer along with demographic profile were used to gather data. Frequencies and percentages were computed through SPSS 21.

**Results:** Out of 433 participants only 29% (126) women knew about breast cancer screening methods. The knowledge about breast cancer screening technique was very low, Out of 29% (126), majority 77% respondents had not done any breast cancer screening ever 80.2% respondents did not have knowledge about breast cancer screening methods. 93.7% participants appreciated screening as a helpful test for early detection of breast cancer. Only 7.6% women have knowledge about signs and symptoms of breast cancer. Knowledge about breast cancer and its screening were more in literate and married respondents. The 69.05% respondents were literate.

**Conclusion:** Awareness regarding breast cancer screening methods was 30% in 30-49 years of age group most of the women were literate and married.

**Key Words:** Breast cancer, screening, KAP survey.

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### INTRODUCTION

Breast cancer is the commonest cancer in females.<sup>1</sup> As mentioned in International Agency for Research on Cancer (IARC), there were 14.1 million new cancer cases reported in 2014 worldwide, of which 8 million occurred in developing countries, which contain about 82% of the world's population. The total cancer deaths in 2012 were 8.2 million (about 22,000 cancer deaths a day) out of 8.2 million 2.9 million in developed countries, and 5.3 million in developing countries.<sup>2</sup>

It is estimated that 1 out of 9 Pakistani women is at risk to develop breast cancer at some stage of her life.<sup>1,3</sup> A latest report from Shaukat Khanum Memorial Cancer Hospital and Research Center in Lahore reported 45.0% of malignancies due to breast cancer among adult's females from December 1995 to December 2009. In Pakistan, there is no record keeping cancer registration system at National level so breast cancer statistics have not been adequately recorded.<sup>1</sup> Breast cancer mortality may be reduced with the help of mammography through early detection and treatment. The breast self-examination (BSE) and clinical breast examination (CBE) are other screening methods. It is therefore important to assess the awareness of the screening in target group before planning strategies to make the screening program more effective.<sup>4</sup> The global burden of breast cancer is expected to become 2 million by the year 2030, with increasing proportions from developing countries. Breast cancer incidence rates within developing countries shows variations due to differences in education level, age at first child, number of children, and lifestyle factors e.g., tobacco smoking and alcohol use.<sup>5</sup> Survival rates from breast cancer is 80% in North America and other developed countries, 60% in middle-income countries, below 40% in low-

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income countries and lowest in less developed countries. This is due to illiteracy, late detection of carcinoma and inadequate treatment facilities.<sup>1</sup>

Through various studies carried out in past, it is now known, that early detection of cancer, greatly increases the chances of successful treatment and decreases the health burden of morbidity and mortality. Screening and early diagnosis of breast cancer are poor in developing countries like Pakistan.<sup>1</sup> Breast self-examination, clinical breast examination and mammography are the universally suggested screening methods for breast cancer. By doing breast self-examination women are able to detect any changes in their breast and consult with physicians immediately for treatment.<sup>1</sup> The aim of our study is to know how many women have the knowledge, attitudes, and practices, regarding breast self-examination, mammography and risk factors for breast cancer in women of Karachi.

## MATERIALS AND METHODS

The questionnaire-based, cross-sectional study was conducted at Abbasi Shaheed hospital Karachi from September 2015 to February 2016. The study protocol was approved by the Ethical Review Committee (ERC) of the KMDC.

The data of all 433 respondents were collected through self-administered close-ended questionnaires. The questionnaires were initially designed in the English language and were then translated into national language and again retranslated into English for confirmation purposes. All the questionnaires were administered in Urdu. The questionnaires first pre-tested at the Abbasi shaheed OPD and the issues raised during the pre-testing were resolved. The questions were aimed at judging the level of awareness, knowledge, attitudes, and practices about risk factors and screening for breast cancer along with the common sources from which our respondents gained their information.

The sampling technique was convenience sampling. The sample size was calculated by Rao soft software assuming margin of error 5%, with two-sided confidence level 95%, a prevalence of 50%. The required sample size came out to be 377. Assuming a refusal rate of 15%, 433 potential subjects were approached. The study duration was 6 months. All women of 20-70 years of age visiting Abbasi Shaheed hospital OPD were included. While regular breast screening is recommended in women over the age of 40, but recently the American Cancer Society Guidelines for the Early Detection of Cancer has advocated clinical screening for women over the age of 20.<sup>20</sup> considering this in mind we include women between the ages of 20 – 70 years of age in our study. Those who could not read or understand the questionnaires were excluded. The participants were clarified before filling the questionnaires that the

information collected was for research purposes and informed consent was taken.

The participants were told that the information will be kept confidential. Performa was filled through a face to face interview by trained data collectors familiar with the objectives of our study. The questionnaires were in the native Urdu language so as to make it easier for the subjects to understand. Questions related to breast screening knowledge and signs and symptoms of breast cancer were asked from women with various levels of education and marital status.

The questions aimed to calculate the level of awareness, knowledge, attitudes and practices regarding breast self-exam (BSE), mammography and risk factors for breast cancer. The questionnaires were counted for the questions addressing knowledge regarding risk factors for breast cancer and awareness about the screening methods.

The data were entered into a pre-designed file by two individuals separately, using SPSS Version 21. Both data sets were then tested to identify any mistakes in data entry and all inconsistencies during the process of data entry, were settled and resolved using the hard copy of the filled questionnaires. The data sets were then combined and the data was analyzed using SPSS 21.

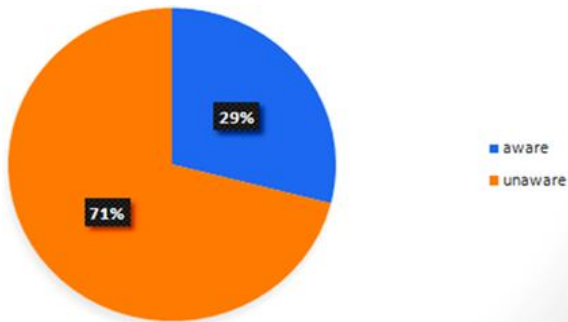
Descriptive statistics were used to describe the data with respect to the age, education level and marital status. Frequencies and percentages were computed for categorical variables. Mean and SD corresponding 95% confidence interval for continuous variables.

## RESULTS

Total 433 questionnaires were distributed among females attended at Abbasi Shaheed hospital Karachi. Analysis of practices relating to BSE, clinical breast examination and mammography showed that 126 (29%) had heard about BSE, only 29(23%) were done BSE showed in Table 1 and graph 1, 2.

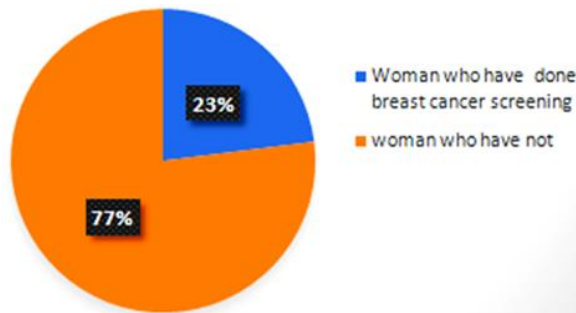
**Table No.1: Awareness regarding Breast Self Examination**

Screening Methods	Aware	Unaware	Total
	29%( n=126)	97%(n=307)	433
Breast self-examination done	23%		
Breast self-examination not done	77%		



**Graph No.1: Awareness Regarding Breast Cancer Screening**

Out of total 433 females who consented to take part in the research, 29% (126) women knew about breast cancer screening while 71% (307) women did not.

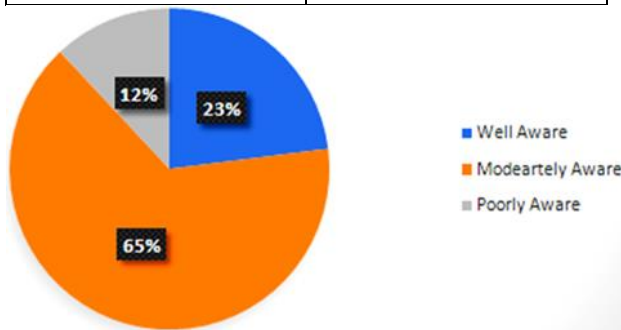


**Graph No.2: Ratio of breast cancer screening.**

Out of total 126 respondents, only 29 (23%) had done breast cancer screening while the rest 97(77%) did not practice it.

**Grading of Awareness of Breast CA Screening**

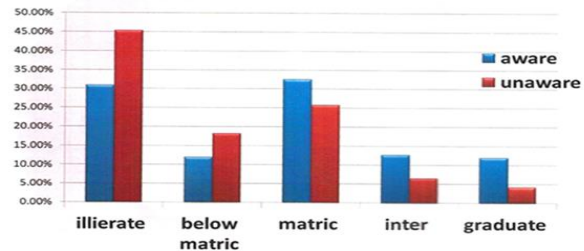
WELL AWARE	Those who answered 4 to 5 questions.
MODERATELY AWARE	Those who answered 2 to 3 questions.
POORLY AWARE	Those who didn't answer any question or only one answer.



**Graph No.3: Grading of Awareness of Breast CA Screening**

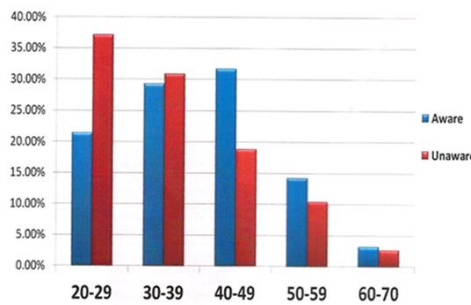
Out of 433 women, 126 women had awareness regarding breast cancer screening. Majority of participants were 20- 40 years and, married 93.65%,

only 6.34% were unmarried. The literacy percentage was found to be 69.05% shows in graph 4, most of the respondents were metric (47.12%), under metric (17.2%), intermediate (18.39%), graduate (17.2%) and illiterate were 30.95%.



**Graph No.4a: Comparison of literacy and awareness.**

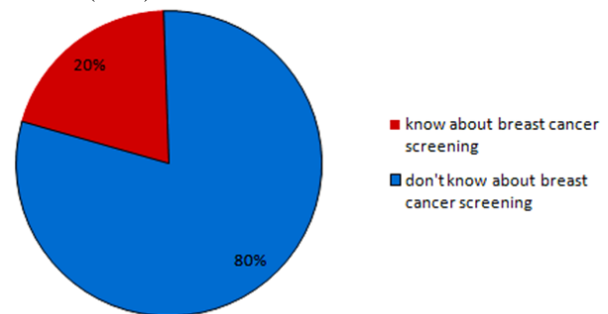
Level of awareness is directly proportional to literacy.



**Graph No.4b: Comparison of Age and awareness.**

Level of awareness is more in middle aged women.

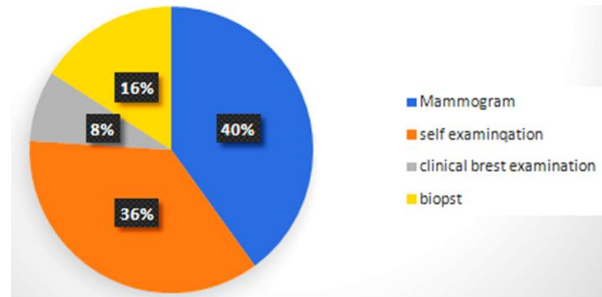
Majority of women (graph 5) 80.2% had no knowledge about breast cancer screening Methods only 19.8% had knowledge regarding Screening methods, Clinical Breast Examination (6.3%), Breast Self-Examination (1.6%) and Biopsy (3.2%). Mammogram was found to be the most common method acknowledged by the women (40%).



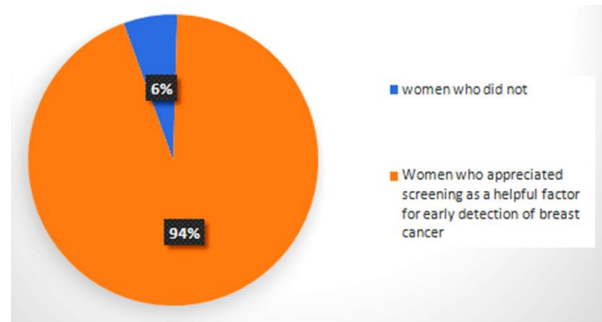
**Graph No.5a: Knowledge about the method of breast cancer screening:**

Out of 126 respondents who have knowledge regarding breast cancer screening 93.7% appreciated screening as helpful factor for early detection of Breast cancer whereas 6.3% did not.

Out of 126 women, 7.6% women had knowledge about cancer signs and symptoms whereas 94.4% had no knowledge.



**Graph No.5b: Knowledge about the method of breast cancer screening**



**Graph No.6: Knowledge about screening as a helpful factor for early detection of breast cancer**

## DISCUSSION

Studies regarding breast cancer awareness and the BSE have been conducted in different populations. Various studies conducted showed the similar results to our findings, like education, higher levels of education and income are significant determinants of knowledge of breast cancer risk factors and BSE practice. In our study 69.05% women are literate and are aware about breast cancer screening. The same result showed in a study done in India,<sup>14</sup> where higher education status and married women have the incidence of breast cancer is lower due to awareness of screening of breast cancer.<sup>14</sup> Same study was done in Nepal which showed Graduates were more aware about Breast self-examination, mammogram and warning signs of breast cancer compared to those with low educational levels.<sup>16</sup> Another study in south eastern Iran also showed same relationship between education and Breast cancer screening awareness.<sup>12</sup>

The early detection of breast cancer by screening is directly related to prognosis of disease.<sup>1,8,15</sup> A study from 25 universities of 24 countries across Asia, Africa and America which showed overall 50.4% female students knew how to conduct breast self-examination. Among them monthly practice of Breast self-

examination in Nigeria and Laos was above 20% and in Bangladesh and India was below 2%.<sup>21</sup>

In our study 80.2% had no knowledge about breast cancer screening methods, same results were shown in a study conducted in Bangladesh.<sup>13</sup> The awareness about mammograms as screening tool is directly proportional to literacy a finding similar to that reported by Sobani ZUI et al which also found poor knowledge of Mammogram as a screening tool in illiterate women.<sup>20</sup> In our study level of awareness about breast cancer and screening are more in middle age women (32-49 year) 91.5%, same finding were found in studies done in Malaysia<sup>7</sup> and Iran.<sup>17</sup>

In our study there were about 93.7% respondents appreciated screenings as helpful factor for early detection of breast cancer same results showed a study done in Pakistan by Zahida AM et al.<sup>4</sup> Data from National American survey on cancer risk revealed that knowledge regarding breast cancer were poor among the poorest and least educated women similar findings were reported among Pakistani women.<sup>2</sup> In our study Lack of Breast cancer screening awareness was prevalent mostly in lower socio economic category. Same results showed in a study done in India in which Lack of BC awareness was prevalent, especially in low socioeconomic class. Women's aim be addressed by BC awareness campaigns.

## CONCLUSION

Knowledge and awareness about breast cancer screening were more in literate and married respondents. There were 69.05% literate respondents, 13.9% were illiterate. 90% of participants did not have any knowledge regarding Breast Cancer screening methods. Awareness about breast screening methods 30% in 30-49 years of age participants. Breast cancer screening awareness will reduce the mortality among women due to breast cancer.

**Recommendations:** The women knowledge about Breast cancer and its detection methods is need to increase by awareness programs.

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### Author's Contribution:

Concept & Design of Study:	Farhat Jafri
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**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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