

Original Research Article

**A study to assess the knowledge and belief of female towards breast cancer and its screening practices in Hyderabad, India**

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**Abstract**

**Background:** Cancer affects all communities world wide, approximately 14 million new cases and 8 million deaths were there in 2012. Breast cancer is by far the most common cancer among women. Most of the victim turn up for medical intervention at advanced stage when survival rate is low. Commonest reason for late reporting is lack of awareness about risk factor, symptoms and early detection methods of breast cancer. **Objectives:** To assess the knowledge and belief of female towards breast cancer. **Methodology:** A hospital based study was carried out at Deccan College of Medical sciences, Hyderabad during the period of August 2013 to October 2013. Women age 20 or more attending Obstetric and Gynecology OPD of Owaisi hospital during study period were included in study. A pretested structured questioner was used to collect the needed information from respondents. Data was entered in MS excel, and analyzed and presented by frequency table. **Results:** Total 179 women were participated in study. Most of them (83.2%) were aware of breast cancer and agree that risk of breast cancer increase with high fat diet, early menarche, oral contraceptive use and radiation exposure. Only 48% of participants were aware that test to detect breast cancer is available and only 20% had knowledge about breast self examination and only 4% practice it. **Conclusion:** It is concluded that though awareness regarding breast cancer was good but there was poor knowledge and practice about screening test.

**Key Words:** Breast Cancer, Breast Self Examination, Breast Screening, Clinical Breast Examination, Mammography

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**Introduction**

Cancer is a leading cause of morbidity and mortality globally, with approximately 14 million new cases and 8 million cancer related deaths in 2012 which constitute 13% of total deaths worldwide.<sup>1-2</sup> Cancer is a major public health problem in India also with over 1 million new cases and approximately 7.8 lakh deaths per year contributing 7.8% global cancer burden and 8.3% global cancer death.<sup>1</sup> Breast cancer is most common cancer in both developed as well as developing countries among women with an estimated 1.67 million cases diagnosed in 2012

(794000 in developed and 883000 in developing region). This accounts to 25% of all cancers with incidence rate of 27 per lakh in Eastern Africa to 98 per lakh in Western Europe. In India also prevalence of breast cancer is increasing as there were 115251 cases with incidence rate of 23 per lakh population in 2008 to 144937 cases in 2012 with incidence rate of 27 per lakh population.<sup>3</sup> According to National Cancer Registry (2012-14), breast cancer was the most common cancer among Indian women.<sup>4</sup> Main risk factors for breast cancer are early menarche, late menopause, family history, high fat diet, oral contraceptives and radiations.

Most of the victims seek medical intervention at advance stages of breast cancer. This is because of lack of knowledge and awareness regarding breast cancer and it's screening.<sup>5</sup> Early breast cancer constitute only 30% of the cases seen at different cancer center in India whereas in developed world 60-70% of cases seek medical intervention at early stages.<sup>6</sup> If breast cancer patients present in 3<sup>rd</sup> and 4<sup>th</sup> stage the outcome is not as good as earlier stage.<sup>7</sup>

Assisted detection [FNAC, mammography, clinical breast examination, and self breast examination] increases chances of early detection of tumor, and tumor free survival duration and decrease recurrence rate.<sup>8</sup> American Cancer Society guidelines suggest some measure for early detection of breast cancer like, 1) Breast Self Examination for women starting their twenties, 2) Clinical Breast Examination about every three years for the women in their twenties and thirties and every year for women at age forty and above and also 3) yearly Mammography at the age of forty.<sup>9</sup>

Aim of primary prevention of breast cancer should be to eliminate risk factors hence promotion of breast cancer education is important intervention. As breast cancer is not a topic freely discussed in India because of culture and taboos, there is an urgent need to create awareness and information about breast cancer and its early detection. Keeping in mind, the increasing incidence of breast cancer and importance of screening to control it, a study was undertaken to assess the knowledge regarding breast cancer among women.

### Materials and Methods

A cross sectional hospital based study was carried out at Deccan College of Medical sciences, Hyderabad during the period of August 2013 to October 2013. Ethical clearance was taken from institutional ethical committee. Women age 20 or more attending Obstetric and Gynecology OPD of Owaisi hospital were included in study. We had selected 180 women by quota sampling. As large number of women attending Obstetric and Gynecology OPD we choose systemic random sampling to draw the sample. Every 10<sup>th</sup> patients fulfilling our inclusion criteria were selected. Informed consent was taken from participants. A pretested structured questioner was used to collect

the needed information from the respondents. Information collected was knowledge and attitude regarding breast cancer, it's risk factors, screening methods and available treatment. Out of 180 selected cases, study questioner of one participant was dropped out in scrutiny, hence total 179 women were finalized as participants. Data was entered in MS excel and analyzed and presented by frequency table.

### Results

In this study 179 women were participated. In the study population 66% were in age group of 20-29 years and 74% belongs to upper middle class, 87% were married. Around 83% women were aware of breast cancer and 64% know that it is non infectious disease. About 68.8% said that breast cancer is common among married women without children. Regarding the risk factor of breast cancer, 65% women believes that risk of breast cancer increase with high fat diet, 55% said early menarche is a risk factor, oral contraceptive use is also a risk factor believed by 61% women while 52% women believed radiation exposure as risk factor but only 33% agreed that breast cancer risk increases with positive family history. About 63% of participants agree that breast feeding decreases the risk of breast cancer. Only 48% of study populations were aware that test to detect breast cancer is available and 66% said that breast cancer is curable if detected at early stage. (table 1) Regarding breast self examination, 20% had knowledge but only 4% practice it.

**Table 1: Knowledge of women regarding breast cancer (N = 179)**

Variables	Yes	No	Don't know
Aware of breast cancer	149 (83.2%)	30 (16.8%)	0
Breast cancer is infectious	27 (15%)	115 (64.2%)	37 (20.8%)
Common among married women without children	123 (68.8%)	56 (31.2%)	0
Menarche below 10 years increase the risk	99 (55.3%)	80 (44.7%)	0
Family history increase the risk	59 (33%)	86 (48%)	34 (19%)
High fat diet increases the risk	117 (65.3%)	17 (9.5%)	45 (25.2%)
OCP increase the risk	110 (61.45%)	11 (6.1%)	58 (32.4%)
Breast feeding decrease the risk	113 (63.1%)	26 (14.5%)	40 (22.4%)
Radiation increase the risk	94 (52.5%)	55 (30.7%)	30 (16.8%)
Testing available	86 (48%)	59 (33%)	34 (19%)
Curable in early stage	118 (66%)	24 (13.4%)	37 (20.6%)

## Discussions

Breast cancer is one of the preventable cancer and survival rate is directly related to the stage at diagnosis and treatment. In India, women seek medical care at the advance stages when mortality rate is high. Several reasons for late reporting have been found, of which lack of awareness, poor health seeking behavior and shyness on part of patients are major ones. There is misconception regarding breast cancer in India also like breast cancer means losing one's breast, trauma will cause breast cancer and breast cancer is a communicable disease.<sup>10</sup> Present study was undertaken to assess the knowledge and belief about breast cancer and its screening practices in an attempt to break the barrier and spread the awareness about early detection and treatment of breast cancer and hence reduce its mortality. In this study 179 women were participated. Majority of study population were in age group of 20-29 years and belongs to upper middle class and most of them were married. In present study we found that most of the women (83%) were aware of breast cancer. Similar result of high awareness about breast cancer was also reported from a study in Mumbai by Shinde<sup>10</sup> (80%), Punjab by Shehrawat<sup>11</sup> (81%), Jharkhand by Kumar (75%),<sup>12</sup> while in studies in Delhi by Somsatta<sup>5</sup> and Dey S<sup>13</sup> awareness was low i.e. 56% and 53% respectively.

Most of women in this study agreed that risk of breast cancer increase with high fat diet, early menarche, oral contraceptive use and radiation exposure, which was in concordance with Shehrawat study<sup>11</sup> but only 33% agreed that breast cancer risk increases with positive family history. In Kumar study majority (53%) said that positive family history is main risk factor for breast cancer and only 27% said high fat diet is risk factor.<sup>12</sup> In a study by Al Junaibi in Oman also found that family history was most widely (86%) known risk factor.<sup>14</sup> Majority of participants agree that breast feeding decreases the risk of breast cancer. Similar result also found in study by shehrawat<sup>11</sup>, but study by Shinde found that very few respondents believed that breast feeding is a protective factor.<sup>10</sup> In this study we found that only half of study populations were aware of the test to detect breast cancer and 2/3<sup>rd</sup> said that breast cancer is curable if detected at early stage. Shehrawat<sup>11</sup> also found that nearly half of the women aware of screening test and 2/3<sup>rd</sup>

were aware of treatment available. In Kumar study 57% women said breast cancer is not curable.<sup>12</sup> Breast Self Examination (BSE) is an appropriate screening test for breast cancer and practicing BSE can reduce the mortality by early detection of breast cancer. The present study showed that knowledge and practice of BSE were very low, only 20% had knowledge and only 4% practice BSE. Similar finding of very low knowledge and practice of BSE were also reported in many studies.<sup>10-12,15,16</sup> Many studies from different part of country also found that planned teaching and education programme can improve the knowledge and skill of women towards breast cancer and early detection by different screening test.<sup>17-19</sup> Health care providers can play an important role in disseminating this knowledge to the community. The teaching of BSE can help women to be alert to any abnormal changes in their breasts and seek medical advice immediately.

**Conclusion:** In conclusion, this study had shown that though awareness regarding breast cancer was good but there was poor knowledge about risk factors and screening test. Breast self examination which is most sensitive and cost effective method for early detection of cancer was known by few women and very few of them practice it regularly. Therefore it is important to educate the women about breast cancer and its risk factors, eliminate the misconception and promote screening for early detection.

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