

Evaluating the Awareness in Women about Routine Self-examination of Breast in Patients Attending the Out-patient Department of a Rural Hospital

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ABSTRACT

Introduction: Breast cancer is one of the leading causes of cancer in women in India and is rising in both rural and urban areas.^[1] One of the important strategy in reducing breast cancer mortality is the use of screening methods such as BSE, clinical breast examination, ultrasonography and mammography for early detection.^[2] Early detection helps in the treatment before metastasis occur and hence better outcome and good prognosis. **Materials and Methods:** A cross sectional study was conducted in a Rural tertiary teaching Institute. 426 females above 18 years of age group visiting the outpatient department were included. Pre tested self-administered questionnaire was used to assess the knowledge and level of awareness about breast self-examination among the subjects. Based on these results the individual subjects' knowledge about breast self-examination was accessed and awareness was determined. **Results:** More than half of females (51.20%) told that they knew that early detection is possible in breast cancer. More than half of the females (54.22%) in the study group reported that they had heard about the practice of breast self-examination. Almost all females (100%) expressed that they would like to have more knowledge about BSE. Out of the 426 reproductive age group females in the study group, only 168 females (39.44%) were practicing breast self-examination. Our results indicate that education and occupation has significantly influenced knowledge about breast cancer & BSE. Other demographic factors like age, and marriage were not significantly related to the knowledge associated with BSE and Breast Cancer. **Conclusion:** The women in a rural area of Maharashtra had poor knowledge about the risk factors and symptoms of breast cancer. Though most of the females have heard of breast cancer as a disease entity, they had extremely low awareness about BSE and its practice. The knowledge about the different methods of screening for breast cancer was very poor. There is a need to create & promote awareness of the importance of BSE amongst women so as to improve this practice to detect breast cancer at an early stage.

Keywords: Awareness, BSE, breast self examination

INTRODUCTION

Breast cancer is one of the leading causes of cancer in women in India and is rising in both rural and urban areas.^[1] This pioneering disease can be detected by performing Breast Ultrasound, Mammography Biopsy, etc.^[2] However, in low-middle-income countries, such as India, these diagnostic tests often pose a huge financial burden on the rural population. For this

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reason, feasible alternative methods, such as breast self-examination (BSE) can be performed at the comfort of one's home after the female has been appropriately educated and informed about its risks and benefits by a qualified medical practitioner.^[3]

Although studies conducted in Shanghai and Russia found no advantageous effects of BSE in reducing the number of cancer deaths, the American Medical Association and the American School of Obstetrics and Gynecology highly recommend periodic monthly BSE. Once a woman is comfortable in her skin and aware of the normal look, consistency, and feel of her breasts, it will be easier for her to detect any abnormalities and thus report to a medical practitioner.^[4] Lack of awareness is the dominant factor for an increasing number of reported cases and even late presentation.^[4]

By including BSE as a routine practice, it'll be unchallenging to detect evident changes, such as inversion of nipples, development of a lump, change in color, or consistency of the underlying skin. Thus it will be beneficial at the primary level for the detection of any peculiarity.^[5] Since India is a patriarchal country, rural women, in particular, feel skeptical to consult male doctors or to access healthcare services due to household burden and thus often seek healthcare facilities at a much later stage which results in a delay in diagnosis and worsening of the existing disease.^[6]

Despite all the above-mentioned facts, on suspecting the presence of any abnormality, it is of utmost importance to get it confirmed by a medical practitioner before jumping to any conclusion or becoming anxious.^[7]

Thus this study is pivotal in rocketing the female's understanding, knowledge, interest, and approach of examining her crucial body part - "the breasts." It not only helps in the probable early diagnosis of breast cancer but also assists in detecting any other abnormalities, such as discharge from a nipple.

This female-oriented study endeavor will be directed at all women above the age of 18 years and consists of a questionnaire that will be used to elicit information regarding their socio-demographic profile; Knowledge, attitude, and practice of BSE, source of information, social barriers, etc.

Aims and Objectives

1. To assess the knowledge regarding BSE and its implications among women in a rural area in Maharashtra

2. To study the association of awareness score with education and employment.

MATERIALS AND METHODS

A cross-sectional study was conducted in a Rural tertiary teaching Institute. 426 females above 18 years of age group visiting the outpatient department were included. Those who are suffering from breast cancer or have already been diagnosed with a breast lump are excluded. Pre-tested self-administered questionnaire was used to assess the knowledge and level of awareness about BSE among the subjects. All correct responses were awarded a score of 1 and 0 for wrong responses. Interpretation was made considering a score <7 as inadequate knowledge, 8-12 as moderately aware, and >12/15 as adequately aware. Collected data were graded and analyzed on percentage grading. Based on these results the individual subjects' knowledge about BSE was accessed and awareness was determined. Their educational and occupational information was also collected and association with the awareness score was determined.

RESULTS AND ANALYSIS

The majority of women in the study (75.3%) were between 26 and 50 years of age, followed by 14.85% in the 15-25 age group and 6.33% between 51 and 65 years. Of the 426 participants, 15 women (3.52%) chose not to disclose their age. Most women (60.5%) resided in nuclear families, while around 36% lived in joint families.

Among the 426 women of reproductive age, 363 (85.2%) had at least one child, whereas 63 (14.8%) were nulliparous. The majority had their first child before turning 30, with only a small proportion (2.48%) having their first child after 30 years of age. Regarding family size, 40.14% of the women had two children, 34.53% had one child, and approximately 10.53% had three or more children.

Most participants (61.91%) reported attaining menarche at 13-14 years, while 15.5% experienced late menarche at age 15 or older. Regular menstrual cycles of 28-30 days were reported by 69.7% of the women. Only 31% had a history of oral contraceptive use, and 3.52% reported prior use of hormone replacement therapy.

Medical and Family History of Breast Cancer

39 women (9.15%) reported a family history of breast cancer among the total study group of 426.

Knowledge about Breast Cancer in Reproductive Age Group Females

Approximately 81.7% of the women reported being aware of breast cancer. Over half (51.20%) stated that they knew early detection was possible. However, 210 women (49.3%) were not aware of the risk factors associated with breast cancer. Among the 426 participants, 144 women (33.8%) lacked knowledge about the signs and symptoms of the disease. About 294 women (58.45%) acknowledged that early detection could improve survival outcomes, yet 43.66% were unaware of any screening tests available for early detection.

Knowledge of BSE

More than half of the participants (54.22%) had heard about BSE. The primary source of information was television and radio, cited by 18.18% of respondents. Around 22.1% reported learning about BSE through newspapers, while only 6.5% received this knowledge from family members. A majority (60%) of the 426 participants did not know the correct age to start BSE or the proper technique and timing for performing it.

Attitude of Reproductive Age Group Females about BSE

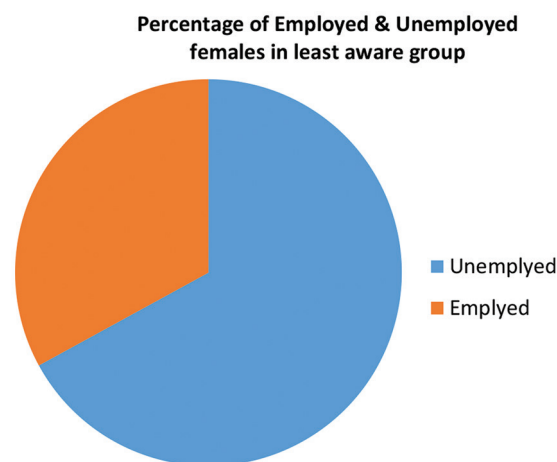
When asked about the importance of BSE, 60.56% admitted they had no knowledge of it, and only 1.69% considered it useful for breast cancer screening. In response to how they would react if diagnosed with breast cancer in the future, 4.9% said they would feel scared, while 95.1% indicated they would consult a doctor. Nearly 89.43% expressed they would seek medical attention within 1 week if diagnosed. All participants (100%) expressed a desire to gain more information about BSE.

Practice of BSE

Among the 426 women of reproductive age, only 168 (39.44%) reported practicing BSE. Of these, three performed BSE due to a family history of breast cancer, while 54 did so following a doctor's recommendation. A significant portion (60.56%) did not practice BSE. Among the reasons given: 13.3% felt it unnecessary as they had no breast cancer, 14.7% believed BSE was not

Table 1: Least awareness group

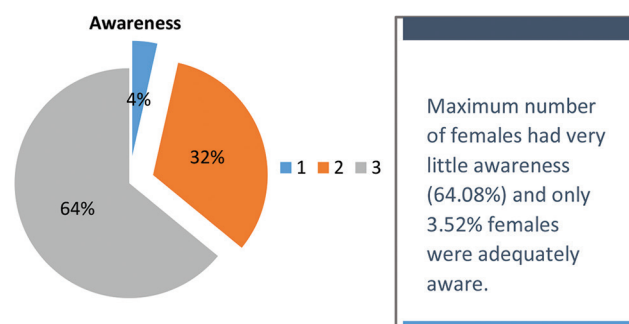
Occupation	Percentage of females
Unemployed/Housework-183	67.03
Working women-90	32.97



needed, and 72% lacked awareness about BSE and its benefits.

After collecting all the responses, the study questionnaire was scored out of 15 to check the level of awareness in 426 females belonging to the reproductive age group and the result was as follows:

Awareness	No of females	Percentage
Highly Aware- score >12	15/426	3.52
Moderately Aware- score 8-12	138/426	32.40
Less Aware- score <or=7	273/426	64.08



Association of education with the level of awareness, highly aware group all were at least done with their graduation. However, in the group of moderately aware, 80% of females have completed the graduation still knowledge about BSE is limited. 57% of females in the least aware group have completed education only up to high school. This shows that the knowledge of breast cancer and BSE was found more in females who had higher education.

Considering employment, 76–80% of females in the highly aware and moderately aware group were employed. Maximum females who fell into the least aware group were involved in housework (67.03%) and only 32.97% were employed.

This suggests that factors, such as occupation and employment affect the knowledge about breast cancer and BSE. Employed/working females are more aware about BSE.

DISCUSSION

Awareness and knowledge about breast cancer among women play a critical role in enabling early recognition of signs and symptoms, which in turn contributes to reducing mortality rates. Globally, lack of awareness remains a major factor contributing to the rising number of deaths due to breast cancer.

In our study, 54.22% of participants had heard of breast cancer, yet 30.28% were unaware that early detection is possible. This limited awareness of early detection aligns with findings from several studies conducted in different regions of India^[8,9] and other developing nations.^[10-14] Although 70.6% of women in our study were aware of breast cancer risk factors, only 24.78% correctly identified a family history of breast cancer as a significant risk factor. This contrasts with studies from Western countries, where women tend to have greater awareness. For instance, Grunfeld *et al.*^[14] reported that 90% of women recognized family history as a major risk factor, followed by previous breast cancer history (70%) and smoking (60%).

A review of medical literature suggests that a woman's knowledge and beliefs about breast cancer and its management can significantly influence her willingness to seek medical care.^[11,15] In our study, only 30.4% of participants identified a breast lump as a symptom. Similarly, a study by Sharma *et al.*^[16] in South India found that rural women had limited knowledge of breast cancer symptoms, with only 21.4% recognizing painless breast lumps as a common presentation.

BSE is a simple, low-cost method for early detection of breast cancer and thus plays a vital role in early diagnosis. However, in our study, although 54.22% had heard of BSE, the majority (60%) lacked knowledge about the correct age to begin and the proper technique for performing it. This finding contrasts with a study conducted in Shiraz, South Iran, where 53.3% of the 300 women surveyed reported performing BSE, though only 5.6% used the correct method at the appropriate time.^[17]

Encouragingly, most women in our study expressed a positive attitude toward breast cancer awareness. All respondents (100%) showed interest in learning more about BSE, and 89.43% stated they would consult a doctor within a week if diagnosed in the future. Similar trends have been noted in other Indian studies,^[8,16,18] underlining the importance of community-based health education programs in rural settings as a key preventive strategy.

Our findings also suggest that education and occupation significantly influenced awareness of breast cancer and BSE. Other demographic factors such as age and marital status did not show a significant correlation. Consistent with our findings, studies have shown that women with higher educational attainment tend to have greater awareness and are more likely to practice BSE.^[16,19] Given the limited research in India on this subject, there is a pressing need for multi-centric studies to better understand the determinants of breast cancer knowledge and BSE practices.

CONCLUSION

Despite Maharashtra being considered a relatively educated and progressive state, the women in this rural population exhibited limited knowledge regarding breast cancer risk factors and symptoms. While a majority had heard of breast cancer, their awareness of BSE and available screening methods was notably poor.

Recommendations

Increase awareness about the importance of BSE to encourage early detection of breast cancer among women.

Promote health education not only through mass media but also through practical demonstrations of BSE at antenatal, post-natal, adolescent, and immunization clinics.

Empower primary care physicians to educate women on “Breast Awareness” during routine consultations for other health concerns, particularly in rural areas where they serve as key community health providers.

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