ASSESSING THE IMPORTANCE OF BREAST SELF EXAMINATION AND BREAST CANCER AWARENESS AMONG HEALTH CARE PROFESSIONALS

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ABSTRACT: INTRODUCTION: Breast cancer appears to be a disease of both developing and developed country. Breast cancer is now the most common cancer in most cities in India, and 2nd most common in the rural areas. OBJECTIVES: 1. To assess the knowledge, attitude and practice of self breast examination among health care professionals. 2. To assess breast cancer awareness among health care professionals. METHODOLOGY: A questionnaire based cross sectional study in which 133 women belonging to various medical and allied specialties were included. RESULTS: It was found that most (91%) respondents were aware of BSE. The electronic media were the major sources of information followed by information from co-health workers. The attitude of health professionals on BSE was positive, with a fairly high degree of acceptability of the idea. Despite the positive attitude to BSE, its practice was low (73.7%). CONCLUSION: BSE is a cost effective screening modality. In view of worldwide rising trends in the incidence of breast cancer rates, importance of BSE should be popularised through mass media. KEYWORDS: Breast self-examination, Breast cancer awareness.

INTRODUCTION: Breast cancer appears to be a disease of both the developing and developed country. Globally, breast cancer is the most common cancer among women, comprising 23% of the female cancers.¹

In India, breast cancer has replaced cervical cancer in the last 10 years and is now the most common cancer among Indian women. According to International Agency for Research Centre, WHO, incidence and mortality of breast cancer in India in 2012 was 145000 and 70000 respectively.¹ And now according to WHO, prediction on Breast cancer in India, 155863 new cases will be detected in 2015 and the deaths would be 75957.¹There is an increase in incidence as well as mortality.

Early detection and prompt treatment offer the greatest chance of long term survival. Breast self-examination (BSE), clinical breast examination (CBE) and Mammography are the secondary preventive methods used in the screening in the early detection of breast cancer cases. Cancer screening test play a pivotal role in reducing breast related morbidity and mortality. Mammography and CBE require hospital visit and specialized equipment’s and expertise but, BSE is inexpensive and carried out by women themselves in the secure private home environment.
Breast cancer presents most commonly as a painless breast lump, a small proportion with non-lump symptoms. For women to present early to the hospital they need to be “breast aware”, they must be able to recognize symptoms of breast cancer through routine practice of BSE. Regular screening is still not established in developing countries like India. Therefore it is important to empower women on the BSE as the primary tool in screening and creating breast awareness and early detection of breast cancer.\textsuperscript{2,3} It is reported that women who practiced BSE had presented more often with clinically early tumors and had shorter patient delay in presentation.\textsuperscript{2,4}

By practicing BSE, women become familiar with both the appearance and the feel of their breasts and therefore would be able to detect any changes in their breasts as early as possible. BSE alone is believed to be appropriate and effective method of ensuring early detection of breast cancer. It could detect 40% of breast lesions.\textsuperscript{5,2} BSE is known as an easy and cheapest self-monitoring method among high and low risk women. It should be popularized and practiced on a regular basis. BSE, mammography, and clinical breast examination are considered as screening methods for early detection breast cancer.\textsuperscript{6} Studies have shown that 6yrs survival rate of women who are taught breast self-examination was 73.1% and with the non-taught group was 66.1%\textsuperscript{1}.

Health care professionals are the most important connecting link between the disease and the diseased in our community. We conducted this study to determine their level of knowledge, attitude and practice of BSE and breast cancer awareness and also to recognize their acceptance, belief and the magnitude of current practice, so that they can propagate BSE. In India we have allopathic doctors, dentists, ayurvedic and homeopathic practitioners and the nursing faculty who are the first approach health care givers in the rural areas. So we have included these professionals into our study.

Health care professionals should take opportunity to target women attending the antenatal clinics, immunization clinics, gynaecology and oncology clinics and community care clinics to educate them about BSE methods using posters, or audio visual aids. Auditing of such activities will help healthcare professionals and health system planners to modify, emphasis, strengthen and select the best and more effective health education program and breast awareness campaigns pertaining to BSE.

**OBJECTIVES:**
1. To assess the knowledge, attitude and practice of breast self-examination among health care professionals.
2. To assess breast cancer awareness among health care professionals.

**METHODOLOGY:** A descriptive cross sectional questionnaire based study conducted in collaboration with the Gynaecology and Oncology departments at S. S. Institute of Medical Sciences and Research Centre, Davangere, Karnataka during the period of April – May 2015.

**Sample:** 133 women health professionals including 40 nursing staff, 40 belonging to medical fraternity, 40 dentists and 16 practitioners of ayurvedic medicine. They were all adults above the age of 21 years, practicing in the same city.
Measurement: The questionnaire was in English and also in local Kannada language, comprised of three divisions: socio-demographic variables, risk factors and signs of breast cancer. Socio-demographic measures, including characteristics such as the respondent’s age, current marital status, level of education, ethnicity, and family history were assessed.

Expressed consent was taken from the participants and they were asked to fill in the questionnaires. Knowledge of breast cancer, history of family members and/or friends with breast cancer was included. 7 questions were composed to determine the level of knowledge of breast cancer; 2 regarding attitude towards breast self-examination and 7 regarding practice of BSE. Categorical responses were applied. Questionnaires were taken from previously conducted studies.

For knowledge items, categorical responses (yes, no and I don’t know) were applied with an item score of "1", "2", "3," respectively, for positive knowledge. For attitude- the answers were either yes, no or options were already specified. And for practice - item score “1”, “2” and “0” for yes, no and no response were applied respectively.

Data were analyzed using SPSS software (version 12). Chi-square test was used for analysis of categorical variables. Correlation was analyzed using Karl Pearson’s correlation coefficient. The total scores for KAP were categorized into good and poor scores based on 70% cut-off point out of the total expected score for each. P-value of <0.05 was considered statistically significant.

OBSERVATION AND RESULTS:

| Sl. No. | Characteristics     | Number | Percentage (%) |
|---------|---------------------|--------|----------------|
| 1       | Age Distribution    |        |                |
|         | 21-25 years         | 62     | 46.6           |
|         | 26-30 years         | 35     | 26.3           |
|         | >30 years           | 36     | 27.1           |
| 2       | Marital status      |        |                |
|         | Married             | 52     | 39.1           |
|         | Single              | 81     | 60.9           |
| 3       | Religion            |        |                |
|         | Hindus              | 116    | 87.2           |
|         | Muslims             | 9      | 6.8            |
|         | Christians          | 7      | 5.35           |
|         | Others              | 1      | 0.8            |
| 4       | Educational status  |        |                |
|         | Allopathy           | 40     | 30.1           |
|         | Dental              | 38     | 28.6           |
|         | Nursing             | 40     | 30.1           |
|         | Ayurveda            | 15     | 28.6           |

Table 1: Socio-demographic Characteristics of the Participants
The total number of questionnaires given out were one hundred and thirty three (133), 40(30.1%) from Allopathy practitioners, 38(28.6%) from Dental, 40(30.1%) from Nursing and 15(28.6%) from Ayurveda. 62(46.6%) of the respondents were in the age group 21-25 years with a mean age of 30 years.

116(87.2%) were Hindus, 9(6.8%) Muslims, 7(5.35%) Christians and 1(0.8%) belonged to other religions. 81(60.9%) of them were single and 52(39.1%) were married.

125(94%) had heard about Breast cancer at one time or the other. 115(86.5%) knew that early detection of breast cancer improves the chances of survival.

121(91%) knew about breast self-examination and among them, most of them, 119(89.5%) knew BSE helps in early diagnosis of breast cancer while 7(5.3%) disagreed and 7(5.3%) didn’t know.

The commonest source of information about the topic was the media (television, newspapers, books) 81(60.9%); closely followed by information through co-health workers in 33(24.8%). 12(9%) had heard about it from parents while only 7(5.3%) got information from friends.

Regarding frequency and onset of BSE, 100(75.2%) felt BSE should begin at age less than 19 while 31(23.3%) quoted beyond 19 and 2(1.5%) didn’t know. Eighty (60.2%) of those studied felt BSE should be done once monthly, 28(21.1%) indicated weekly, 17(12.8%) once yearly and while 8(6%) indicated daily.

One hundred and four (78.2%) of the respondents strongly agreed that BSE should be done in front of the mirror, 12(9%) were undecided, 17(12.8%) disagreed. And 65(48.9%) agreed that BSE should be done in supine position, 30(22.6%) undecided, 38 (28.6%) disagreed. More than half of respondents, 101(75.9%) agreed that it has to undressed till waist while doing BSE while 25(18.8 %) were undecided, and 7(5.3%) disagreed.
Fifty nine (44.4%) respondents mentioned that BSE should be done in immediate post-menstrual period while 54(40.6%) were undecided and 20(15%) disagreed.

More than half of the respondents 107(80.5%) agreed that hands should be raised alternatively above head while doing BSE in front of the mirror and 20(15%) were undecided and 6(4.5%) disagreed.

107(80.5%) participants agreed finger pulp to be used for examination of the lump or thickening of the skin while 18(13.5%) were undecided and 8(6%) disagreed. Ninety three (69.9%) knew that BSE can be done using vertical strip or circular technique while 35(26.3%) were undecided and 5(3.8%) disagreed.

Most of the respondents 98(73.7%) agreed that it is needed to press on nipple for any abnormal discharge while 30(22.6%) undecided, 5(3.8%) disagreed. 107(80.5%) agreed that BSE include arm pit examination to check the lump while 22(16.5%) were undecided and 4(3%) disagreed.

102(76.7) thought signs of retraction and ninety three (69.9%) agreed that lump could be early signs of breast cancer while 20(15%) were undecided and 20(15%) disagreed.

Responding to attitude questions, 130(97.7 %) had positive attitude and only 3(2.3%) of them had negative attitude to BSE. Ninety four (70.7%) professionals had done BSE before while 39(29.3%) had never done it.

Eighty (60.2%) of those who had done, had done it to examine their breasts regularly, 13(9.8%) due to breast cancer in their families while 36(27.1%) due to interest in doing BSE. Those who practiced BSE on themselves were irregular in doing it 61(45.9%) and 91(68.4%) of this group started after the age of 19 while 7(5.3%) before 19 years of age. Thirty seven (27.8%) of the respondents who had done BSE before indicated that their last BSE was less than a week ago, 45 (33.8%) indicated less than 3-6 months, 16(12%) indicated less than a year.

On enquiring the place chosen to perform BSE on themselves said that forty six (34.6%) usually practiced it in the bathroom while 43(32.3%) in front of the mirror and 9(6.8%) lying on bed.

On analyzing the factors for not practicing BSE was due to lack of knowledge in 22(16.5%), lack of symptoms in 18(13.5%), unimportant for 9(6.8%) while 6(4.5%) thought they can never have cancer, 4(3%) didn’t believe in efficacy of the test, 3(2.3%) felt embarrassed to touch their body parts in that way and 2(1.5%) were scared of being diagnosed with cancer.

Almost 131(98.5%) showed interest to learn correct method of BSE and everyone agreed to advice others to do BSE and to seek health care if noticed any abnormality.

DISCUSSION: In the present study, the mean age was 30 years all being educated and these health care professionals should be able to propagate breast cancer awareness, able to educate and to advice their patients effectively. 94% had heard about BSE and 91% knew what was BSE and 89% knew BSE helps in early diagnosis of breast cancer and this source of information was through mass media (60%), similar results are shown by Kayode of 91%, commonest source of information was television (29%) and 28% through friends. 42% of them felt BSE should be done once a month, but 32% strongly disagreed that BSE is a very useful to detect breast swellings.
Okobia\(^8\) quoted 67\% knowledge level in their study though the awareness about risk factors was low, only 21\% knew that breast cancer could present as a painless breast lump. 43\% could identify BSE as a method for detection of breast cancer and television was the main source of information (31\%). Philip\(^4\) reported that only 54\% of the study population practised BSE. Furthermore, in Nigeria, the practice of BSE ranged from 19\% to 43.2\%\(^9,10\) and in India, it varied from 0 to 52\%\(^11,5\).

Rosamwati\(^2\) has showed that knowledge was good and 60\% knew the method of doing BSE in an acceptable manner. Alwan\(^12\) in their study have shown that knowledge about breast cancer was poor in 51\% of the respondents. 71\% had no knowledge about breast cancer being the commonest cancer in their country. 90\% of them had heard about BSE and television again was the most commonest source of information (55.9\%) followed by doctors (21.5\%). Similar positive results were obtained by Dundee.\(^13\) Highest mean percentage for knowledge was among fourth year dental students in a study conducted by Doshi.\(^14\) The foremost barrier for the poor practice of BSE were forgetfulness, lack of time, ignorance, fear, anxiety and low level of education.\(^2\)

In our study, among those with positive family history 90\% felt BSE is necessary. This showed that the level of concern about risk factors and screening for breast cancer is good among the respondents considering their status as health professionals. All among dental and nursing felt BSE is necessary, but it was 97.5\% and 95\% among medical and nursing respectively.

Attitude towards BSE was positive in 97\% in our study, Kayode\(^7\) has reported 75\%, Rosamwati\(^2\) has reported. Alwan\(^12\) has reported 83\% towards learning BSE. Doshi\(^14\) has shown that attitude was best seen among second year dental students.

70.7\% of the participants in our study had practiced of BSE at least once. 36\% did it for the interest of doing BSE, probably the study group being health care professionals. Kayode\(^7\) in their study has reported 54\% had done BSE before and only 29\% had done BSE in the last month. Okobia\(^8\) has reported 34\% practice rates and Rosenwati\(^2\) has reported 7\% practice rates and Alwan\(^12\) has stated 48\% practice rates, Dundee\(^13\) has 40\% practice rates with 10\% doing it on a regular basis. Practice rates were in study by Doshi.\(^14\) Haji\(^15\) has quoted very low practice rates in their study (28-30\%). As medical fraternity a much more would be expected from them as future doctors and also from nursing staff as future health advisors as compared to Ayurveda and dental fraternity.

CONCLUSION AND RECOMMENDATIONS: BSE is a cost effective breast cancer screening modality especially in developing countries like India. BSE to be taught to every woman beyond 30 years of age, mass media to be utilized to propagate BSE. Regular breast screening programs to be implemented in India. Regular training of health care professions to update their knowledge regarding breast cancer and continue to teach BSE to women attending clinics for varied reasons.
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