

RESEARCH COMMUNICATION

Level of Awareness Regarding Breast Cancer and its Screening amongst Indian Teachers

Anita Khokhar

Abstract

A total of 441 women teachers from 8 of the schools located in Delhi, India participated in this cross-sectional study, conducted from July 2007 to February 2008. The mean age was 37.2 years. Some 92.7% of the teachers were aware of at least one sign or symptom of the disease and 63.0% knew at least one high risk factor. However, only 36.1% had heard of the term breast self examination. Only 13.4% knew the correct frequency of once a month, only 7.3% the correct position and only 1.36% participants the correct time. This dismal awareness level reflects the fact that none had ever practiced breast self-examination. Similarly, very few attended regular clinical breast examination (CBE) or had undergone a mammogram. Only 11.8% were aware of the normal look of the breast and 5.4% of the normal feel. There is clearly a need to increase the level of awareness regarding breast cancer and its screening amongst teachers in India.

Key Words: Breast cancer - screening - awareness - Indian teachers

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Introduction

It might take us some years till all the high risk factors for breast cancers are well understood. With the increase in known high risk factors and corresponding increase in the number of cases of breast cancer amongst women in India what seems appropriate for the time being is to educate women regarding this disease and with the aid of screening methods try and uncover as many cases as possible at the earliest. In India community based studies on breast cancer are few and amongst school teachers not even a single study could be found. Since teachers already play an important role in imparting education it would be worth the effort to impart education and training to female teachers regarding breast cancer and its screening so that they can take the cause further.

Materials and Methods

The present study was conducted in New Delhi, capital of India. When India gained independence from British rule in 1947, New Delhi was declared its capital and seat of government. As such, New Delhi houses important offices of the federal government, including the Parliament of India.

Owing to the migration of people from across the country, Delhi has grown to be a cosmopolitan city. Its rapid development and urbanization, coupled with the relatively high average income of its population, has transformed the city. According to the 2001 Census of India, the population of Delhi that year was 13,782,976. The corresponding population density was 9,294 persons

per km², with a sex ratio of 821 women per 1000 men, and a literacy rate of 81.8%. In 2001, the population of Delhi increased by 285,000 as a result of migration and by an additional 215,000 as a result of natural population growth this made Delhi one of the fastest growing cities in the world. By 2015, Delhi is expected to be the second largest agglomeration in the world after Tokyo. Today Delhi is a major cultural, political, and commercial center of India.

Since no such studies have been done in Indian school teachers before, the sample size was calculated using the results of the study conducted by the same author among women college students from Delhi in the year 2007 (Khokhar and Singh, 2008). In that study 54% of the college students had some knowledge about breast cancer presentation. For the purpose of sample size estimate prevalence was assumed to be 50% with an absolute error of 5%. The size was calculated to be 400 with 80% and 95% confidence level. A total of 441 women teachers from 8 of the schools located in Delhi, India participated in the study. Teachers were both from public and private schools. A number of schools were approached to participate and the ones who volunteered to participate in the given time period were included. The study was conducted from July 2007 to February 2008 keeping in mind the examinations and vacation at the schools. A talk followed by explanation of the breast self examination (BSE) technique on the breast models followed by a video clip on the same was shown. After that back demonstration of BSE technique was done by some of the participants till the steps of the self examination became clear to each one of them and they were confident of doing it on their

Table 1. Participants According to their Sociodemographic Variables

Age	22-26	9	2.0
	27-31	40	9.1
	32-36	78	17.7
	37-41	87	19.7
	42-46	74	16.8
	47-51	51	11.6
	52-56	85	19.3
	>56	17	3.9
Religion	Hindu	369	83.7
	Christian	24	5.4
	Muslim	9	2.0
	Sikh	21	4.8
	Others	18	4.1
Marital status	Married	356	80.7
	Unmarried	74	16.8
	Divorced/separated	4	0.9
	Widow	7	1.5
Socioeconomic	Upper	56	12.7
	Upper middle	257	58.3
	Lower middle	128	29.0
Total		441	100

own. The vertical strip method of BSE was explained (Saunders et al., 2006). Each of the programmes lasted for about 90 minutes to 2 hours duration. A pretest and a post test questionnaire was administered to elicit information regarding breast cancer. There was a question and answer session followed by filling of the Performa regarding personal details of the participants. Pamphlets were distributed as well. Data was entered in MS Excel and analysis was done using Epiinfo version 6. Appropriate tables were made and tests of significance applied.

Results and Discussion

A total of 441 female teachers from both public and private schools participated in the study. All of them were more than 22 years of age and the mean age was 37.2 years. In a similar study conducted in Jordan the mean age of teachers was 34.8 years (Madanat and Merrill, 2002) and in Turkey it was 39.8 years (Demirkiran et al., 2007). All the teachers belonged to either middle or upper socioeconomic group as per Table 1. As shown in Table 2, 92.7% of the teachers were aware of at least one sign or symptom of the disease and 63.0% of at least one high risk factor from amongst those listed. All the participants were aware of the fact that breast cancer was a serious condition and 90.2% knew that breast cancer can present as a lump followed by 48.7% who said it could present as pain (Table 2). What is important to know is that although most of the breast cancers start as painless lumps participants thought it presented as pain. In a study from Nigeria the results were comparable, 85% of the women thought it was a serious disease but only 53.2% knew that breast lump was the commonest sign (Oduşanya, 2001). Mean breast cancer awareness score was 62.4% in Jordan teachers (Madanat and Merrill, 2002).

Regarding the awareness about high risk factors 59.2% knew that women who did not breast feed were at a higher risk to develop breast cancer and 58.0% knew that family

Table 2. Participants According to their Awareness about Signs/Symptoms, High Risk Factors and Screening Modalities of Breast Cancer

Signs and symptoms			
	Lump	398	90.2
	Pain	215	48.8
	Discharge	154	34.9
	Changes in shape	151	34.2
	Skin changes	149	33.8
High risk factor			
	Not breast feeding	261	59.2
	Family history	256	58.0
	Late age first child	94	21.3
	Obesity	51	11.6
	Early menstruation	34	7.7
Screening	BSE	159	36.1
	CBE	419	95.0
	Mammography	296	67.1
Total		441	100

history was important. Awareness about the other high risk factors was low, as shown in Table 2.

Only 36% of the teachers had heard the term breast self examination. Teachers knew little about when and how to perform a breast self exam. Only 13.37% knew that the correct frequency of doing it was once a month. Some 7.2% knew about the position in which it should be done and only 1.36% participants were aware of the right time of doing it i.e. for those women who menstruate, a week from the start of periods and for those women who do not menstruate one a fixed date every month. This dismal awareness level was reflected in practice as none had ever practiced BSE. Also none of the participants went for regular Clinical Breast Examination (CBE) and mammogram. The results from Malaysia were slightly better but still low as in their study 19% teachers performed BSE, 25% CBE and 13.6% mammogram on regular basis (Parsa et al., 2008). In Nigeria only 11% of the teachers practiced BSE on regular basis (Oduşanya, 2001). Again making the change of awareness to actual practice a difficult task. In the present study, 95.01% of the women were aware of the fact breast should be examined by a doctor but none of them knew that after the age of 40 years it should be done annually. Similarly although 67.1% had heard of mammogram none knew that after 40 years it should be done annually. Only 9 teachers had undergone mammogram ever on advice of their doctor as they had either one or more symptoms related to breast. In teachers from Jordan those with breast cancer history were more aware of the disease and screening. In this study history of any breast condition was elicited from amongst self, friends, relatives, family. All the 28 teachers with such a history of breast condition were informed of at least one symptom and one high risk factor. But that was not sufficient to change their behavior towards screening. Only 11.8% of the women were aware of the normal look of the breast and 5.4% of the feel of the breast. All expressed their desire to be examined by a doctor once and 45.8% wanted to get a mammogram done. In a similar study conducted in Saudi Arabia before a workshop only 5% teachers agreed and did BSE and 14%

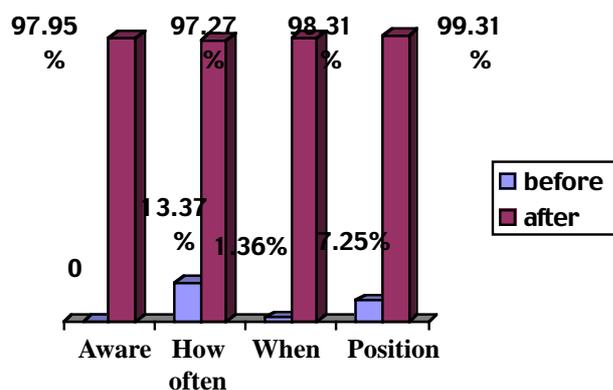


Figure1. Bar Diagram showing Distribution of Participants According to Awareness about Breast Self Examination before and after the training programme.

thought that mammography may be needed. After the workshop 45% agreed to do BSE and 45% agreed to the need of mammography (Maha and Hadi, 2007). Out of the 36.1% of the women who had heard of BSE 80% read about it in a women’s magazine and wanted visual media along with personal training programmes to be leading sources of information for women in times to come. After the training was imparted all the teachers expressed that they would attempt doing it every month. In Jordan also most got information regarding BSE from magazines and books.

Although breast cancer is the leading form of cancer amongst metros of India but early detection rates are low as compared to west. Mammography is not performed as a routine screening procedure most of the times used for those with symptoms or at higher risk of the disease (Nandkumar et al., 1995). Many women miss out on early detection because of their lack of knowledge and practice of BSE and other screening practices. In such a scenario it is of utmost importance to raise awareness about the disease on ongoing basis so that women not only become aware of the problem they adopt a healthy lifestyle too. BSE along with CBE and mammography is a reliable screening tool. Also the fact that most of the breast lumps are found by women themselves and early diagnosis of breast cancer is related to frequency of BSE routine training in BSE is a must Abdel-Fattah et al., 2000).

School teachers can help young adults to develop healthy lifestyle practices and promote BSE as a part of regular lifestyle so that more and number of women at a younger age become familiar with the normal look and feel of their breasts a key tool towards breast cancer control.

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