

A Survey Study on Breast Cancer Awareness Among Secondary, Higher Secondary Female Students and Teachers of Different Schools in Anand District

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ABSTRACT

Breast cancer is presently leading cause of death among women. Every year 4 among 10 women are diagnosed with breast cancer. The present study focused on assessment and development of awareness against breast cancer among the students and staff members from the various schools of Anand district, Gujarat. We had conducted breast cancer awareness sessions for the female students and staff members including early screening techniques, self-breast examinations, healthy habits and lifestyle. Before and after these awareness sessions, we had given them questionnaire based on breast cancer. Questionnaire was given to 206 participants including students and staffs who all were absolutely normal. Our results showed, out of 206 participants 91.7% and 80.6% participants who all had no idea about self-breast examination and breast cancer screening before the awareness session but after the awareness campaign, 78.2% and 76.2% participants have the knowledge of self-breast examination and breast cancer screening. To avoid breast cancer completely females should know the whole concept of breast cancer such as breast cancer types/stages, healthy habits and lifestyle, early screening techniques etc. The present study concludes that there have to be workshops, seminars and awareness campaigns for the females in rural areas to improve the knowledge and skill regarding breast cancer screening and self-breast examination.

KEYWORDS: Mammography, Self-breast examination, Breast cancer, Breast cancer screening

INTRODUCTION

Now a day's one of the most common and deadliest disease is breast cancer. Among all cancer, the mortality rate of breast cancer is highest in world including India. In U.S. 2017, approximately 252710 and 2470 new cases of breast cancer were diagnosed among women and men, roughly 40,610 women and 460 men were predicted to die for breast cancer in 2017 [1]. The mortality rate of breast cancer in Indian women is 12.7 per 100,000 women. In India, the breast cancer incidence rates are much higher in most of the metropolitan cities like Delhi, Chennai, Mumbai, Bengaluru etc. [2]. The rate of breast cancer increases with age. Diagnosis of breast cancer is possible when a female undergoes screening examination in Mammography and Magnetic Resonance Imaging, before the symptoms have developed or after women notices any lump on her breast. The main aim of this survey was to assess the present status of the Breast cancer awareness about early detection of breast cancer, prevention of breast cancer, knowledge of signs and symptoms of breast cancer, management of breast cancer and self-examination of the breast [3]. Breast cancer is presently leading cause of cancer in females, it can be treated only if detected early.

MATERIALS AND METHODS

The Department of Medical Imaging Technology, Charotar Institute of Paramedical Sciences, Charotar University of science and technology conducted Breast cancer awareness campaign with a theme "Early detection better decision" among female students and staff members of nearby schools in Changa, Nadiad, Damol, Mehelav and Napad in Anand district Gujarat. We approached around 10 schools and received permission from the management. Our students as well as staff members from Bachelor in Medical Imaging Technology (BMIT) course went to these schools, given presentations and demonstrations about risk factors and early detection of breast cancer in the month of October 2018 which is celebrated as breast cancer awareness month. We aimed the topics like Breast cancer and its types, improvement in lifestyle, food habits, imaging modalities available for early screening of breasts. We included the non-medical group who all are working in a school as a teacher and studying as adult female students. Before starting the session we had given them the pre-awareness and post awareness questionnaire to 206 participants. We included all adult women within an age range of 16-50 years. Females who filled the questionnaire are perfectly healthy and disease free. The data was entered in the Social package of statistical science (SPSS, version 20.0) and was analyzed by using the same software.

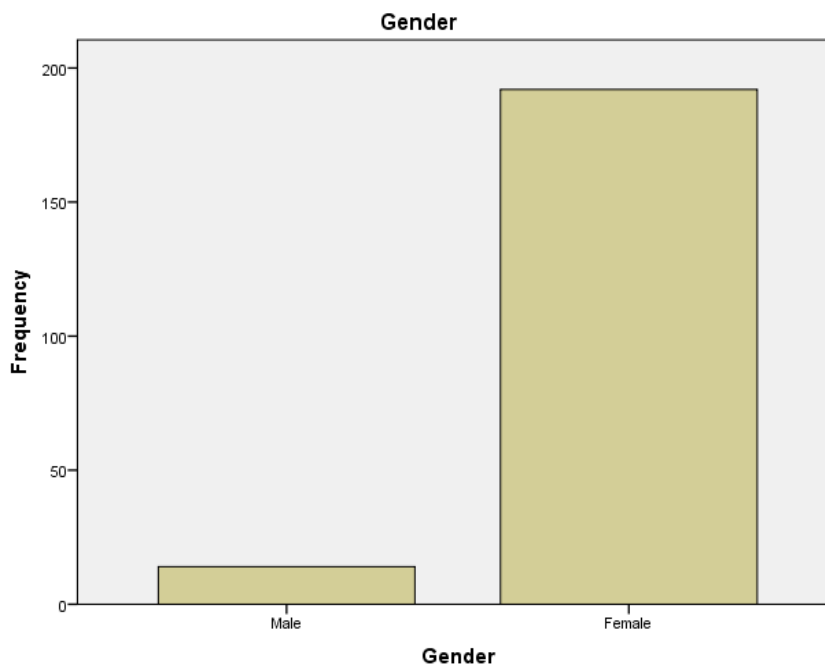


Figure 1: Distribution of Gender.

RESULTS

A total number of 206 participants were included in the survey study. However, most of them were well educated. Out of 206 participants, 192 were females i.e. 93.2% (higher secondary female students including female teachers) and 14 subjects were male teachers i.e. 6.8% [Fig – 1]. During the session, women’s of Anand district had doubts regarding the breast cancer which we cleared by organizing this awareness campaign. Most of the women in this session had no idea about breast cancer screening techniques like mammography, ultrasound and Magnetic

resonance imaging. However, few of them had a myth that mammography involves x rays which may induce cancer since it has a radiation dose. Most of the women did not know about the breast self-examination. Majority of them had no idea of the probability of getting breast cancer with an increase in age, so the sign and symptoms of breast cancer were ignored by them due to fear and shyness. Statistical analysis of the data for this study was performed by calculating frequency and percentage [Table- 1- 8].

Pre awareness session questionnaires

Table 1: Response of participants to statement on basic knowledge of breast cancer.

Have you heard of breast cancer?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	66	32.0	32.0	32.0
	Yes	140	68.0	68.0	100.0
	Total	206	100.0	100.0	

Table 2: Response of participants to statement on breast cancer screening (Pre awareness session).

Have you heard of breast cancer screening?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	166	80.6	80.6	80.6
	Yes	40	19.4	19.4	100.0
	Total	206	100.0	100.0	

Table 3: Response of participants to statement on Self breast examination (Pre awareness session).

Are you aware of self-breast examination?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	189	91.7	91.7	91.7
	Yes	17	8.3	8.3	100.0
	Total	206	100.0	100.0	

Table 4: Response of participants to statement on breast cancer awareness program.

Have you ever participated in such an awareness program before?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	196	95.1	95.1	95.1
	Yes	10	4.9	4.9	100.0
	Total	206	100.0	100.0	

Post awareness session questionnaires

Table 5: Response of the participants to statement on the benefit of awareness in the future.

Material which was explained will be helpful in your future?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	30	14.6	14.6	14.6
	Yes	176	85.4	85.4	100.0
	Total	206	100.0	100.0	

Table 6: Response of participants to statement on breast cancer screening (Post awareness session).

How many of you now know breast cancer screening?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	49	23.8	23.8	23.8
	Yes	157	76.2	76.2	100.0
	Total	206	100.0	100.0	

Table 7: Response of participants to statement on Self-breast examination (Post awareness session).

How many of you can now do Self-breast examination in a proper manner?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	45	21.8	21.8	21.8
	Yes	161	78.2	78.2	100.0
	Total	206	100.0	100.0	

Table 8: Response of participants to statement on the recommendation of this awareness session to your friends and families.

How many of you recommend this breast cancer awareness to your friends and families?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	14	6.8	6.8	6.8
	Yes	192	93.2	93.2	100.0
	Total	206	100.0	100.0	

DISCUSSION

In present study, pre-awareness session questionnaires revealed that 80.6% of participants did not heard off breast cancer screening techniques and 91.7% participants accepted that they did not have any idea about the self-breast examination method prior to the awareness program.

In a survey study done by Naharin Syeed based on awareness about breast cancer and practice of breast self-examination among female respondents in Dhakareported that 15% people have knowledge about the breast cancer examination, 17% heard about mammography as breast screening and 5% have no idea about breast cancer [4]. Marla PresaRaulino Schilling et al, conducted a cross-sectional study based on breast cancer awareness among women in western Amazon in which 28% women recognized advance risk factor for breast cancer and 61.1% of women are very aware about the family history of breast

cancer which highly increases the risk of breast cancer [5]. Another study conducted by Ashraf Kan'an based on an evaluation of breast cancer awareness among female university students in Zarqa University, Jordan where 51% students had a poor level of general knowledge about breast cancer, 90% students had a very poor level of knowledge about breast cancer risk factors [6]. Kazi Manir published a survey study based on breast cancer awareness among urban Indian women in which he reported that 38% have no idea about the age-related risk of breast cancer, 71.7% women never heard about screening of breast cancer, 41.7% women not at all confident to notice changes in their breasts.[7]A survey study published by Pooja Ramakant et al, based on breast cancer awareness among the medical, paramedical and general population in north Indian using self-designed questionnaire: a prospective study which demonstrates that there was higher knowledge component i.e. 58% in medical women

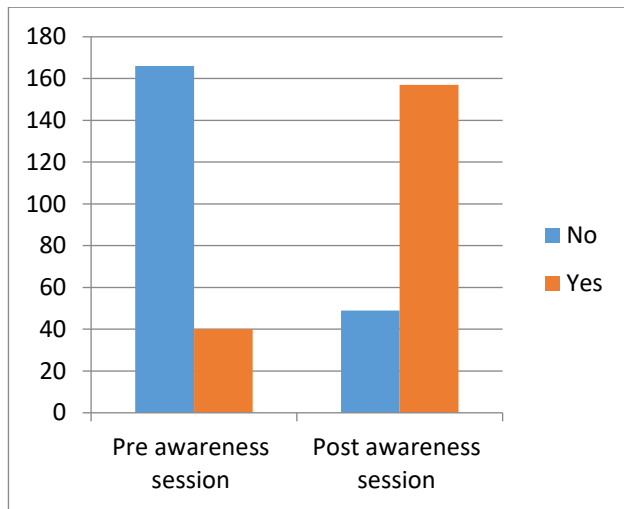


Figure 2: Comparison of Knowledge to breast cancer screening between pre and post awareness session.

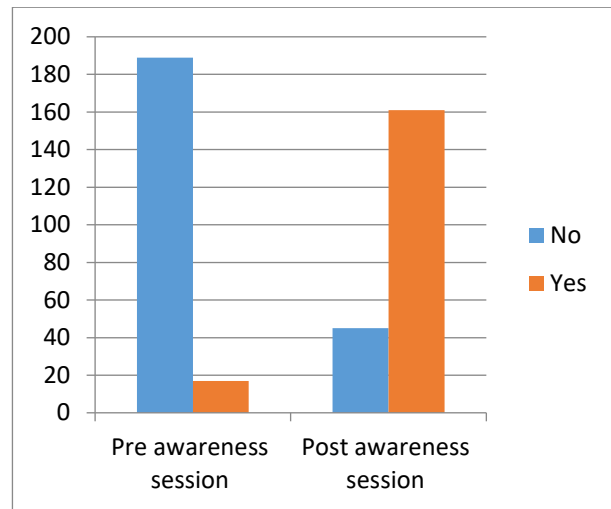


Figure 3: Comparison of Knowledge to Self-breast examination screening between pre and post awareness session.

compared to paramedical women 50% and non-medical women 41% [3]. Parash Mani Bhandari performed a survey study based on breast cancer awareness among higher secondary students in western Nepal reported that 42.8% student has adequate knowledge of lumpectomy and radiation therapy of breast cancer and 39% students were aware of the availability of the treatment therapy other than breast cancer and 1.4% didn't respond [8]. Wherein present study revealed that 19.4% of women had knowledge of breast screening techniques prior to the awareness program.

Wachira et al, conducted a study refining a questionnaire to assess breast cancer knowledge and barriers to screening in Kenya: Psychometric assessment of the breast cancer awareness measurement, in his study he reported that 40% - 56% women can do self-examination of breast properly [9]. Sahar Mahmoud Radi conducted a study on breast cancer awareness among Saudi females in which he reported that 79% of females heard about breast self-examination and 47.5% knows how to perform it [10]. Ali Montazeri et al, performed a study on greater women awareness of warning signs and effective screening methods in Iran Population in which 17% of women conducting regular breast self-examination and 64% have heard about self-examination of the breast but they don't know how to do it, [11] however, in present study 78.2% of participants can now do self-breast examination independently after the breast cancer awareness session, 10% females reported that they did not know about self-breast examination might due to be illiteracy, background or shyness. Majority of them had agreed that this awareness campaign was helpful for them and 93.2% of them had given a word that they will share their knowledge about breast cancer with their friends and family members. At the end of the present study, we compared data's of few questionnaires to check whether there was any improvement in the knowledge of participants before and after the awareness sessions. Comparison of both the data shown positive changes in the data set [Figure 2 & 3].

CONCLUSION

The knowledge of self-breast examination and breast cancer screening was less among these higher secondary students and teachers before the awareness program. The educational campaign, workshops and social work (including breast cancer screening age, healthy diet, self-examination of breast and ability to identify the symptoms) by well-qualified paramedics or medical staff can improve the knowledge of the women lives in Anand district. They had given feedback that the awareness session was very helpful to them. This study reflects that the lack of awareness among women will result in late detection of breast cancer, so the awareness of breast cancer should be given to every female for the betterment of society.

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CONFLICTS OF INTEREST

There are no conflicts of interest regarding the publication of this article.

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