

Awareness of breast self-examination among female students in a tertiary care hospital

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Abstract

Background: Breast cancer is the second most common cancer in the world among women. Early detection of breast cancer plays an important role in prevention of mortality. Thus, Awareness about breast cancer is an important factor to reduce the incidence and outcomes of the disease. For example, if female university students have sufficient knowledge about breast cancer, they help prevent cancer illness in themselves and in their community.

Objective: To assess the awareness of Breast Self-Examination among Female Students in a Tertiary Care Hospital and to provide information on breast cancer and its detection.

Materials and Methods: A prospective cross sectional study carried out among 311 female students in each group of same participants at tertiary care hospital. Selection of students for assessment was by random sampling. Pre-intervention, educational training and 4 weeks later post-intervention assessments were conducted to assess the changes in knowledge on breast cancer and practices of BSE.

Results: The majority age group of respondents was between 18-22 years. The level of awareness of breast cancer and screening methods was low in pre assessment and the education regarding early detection techniques was thought and the post assessment was done after a week, the level of awareness was improved significantly (p value - 0.001).

Conclusion: No women should be ashamed to have an early detection test for her breast. No one must get a life threatening illness. Thus, this study aims to spread maximum awareness regards the self-examination of breast cancer, which helps to reduce the mortality rate due to breast cancer, the leading cancer disease.

Keywords: Breast cancer, self-examination, awareness, female students, tertiary care hospital.

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INTRODUCTION

Cancer is the most malicious disease that can affect people since it can increase people suffering. Cancers have a negative effect on the quality of life and can finally lead to death[1].

Breast cancer is the second most common cancer in the world and the most frequent cancer among women. In 2018, there were 2.1 million newly

diagnosed breast cancer cases among women, accounting for almost one in four cancer cases among women. The World Health Organization (WHO) reported that an estimated 627,000 women died from breast cancer in 2018, representing approximately 15% of all cancer deaths among women (WHO, 2019)[2].

Worldwide, the most prevalent cancer among females is breast cancer. A woman's breast normally consists of glands, or lobules, to generate milk, stroma, which contain connective tissues and fatty tissues, milk-carrying ducts originating from the lobules to the nipples, and lymphatic as well as blood vessels. Breast cancer is a malignant tumour that develops from breast cells. Mostly, it begins in the breast ducts, sometimes in breast lobules and rarely in stromal tissues before it proliferates from its originating site and metastasizing into various parts of the body[3].

Breast cancer is a disease in which breast cells start an uncontrolled growth and produce an undifferentiated cell mass. The American Cancer Society (ACS) broadly divided breast cancer into in-situ and invasive breast cancer. The in-situ breast cancer starts in the milk duct and stay it locally. This type of breast cancer includes ductal carcinoma in-situ (DCIS) which is considered as a non-invasive or pre-invasive breast cancer. While invasive breast cancer has the potential to spread into the surrounding breast tissues and includes invasive ductal carcinoma and invasive lobular carcinoma[4].

It has been reported that increasing age is highly associated with the incidence of breast cancer. Additionally, women having a family history of breast cancer, are more prone to the development of this cancer. Reproductive factors like early menarche, late menopause, late age at first pregnancy, and low parity can also increase the breast cancer risk. The delay in menopause each year increases the risk of breast cancer by 3%. Moreover, the higher fat and low fibre diet can play role in the development of breast cancer[4].

Usually, breast cancer develops after, age of 45, but now the onset age is decreasing thus more young women's are getting affected, which is more aggressive and leading to increase mortality rate[5-8].

The major challenge in breast cancer management was late diagnosis[1,7]. This is because of peoples lack of knowledge about breast cancer symptoms and its identification. Initially breast cancer doesn't show any symptoms in early stages, when tumour enlarges symptoms manifest in the form of painless lump in breast, lump under the armpit, tenderness of breast, swelling/thickness of skin over the Breast, Spontaneous discharge of the nipple (bloody erosion, inversion in the nipple)[5]. Every woman should be familiar with their breast texture according to American Cancer Society (ACS)[9-11].

Early detection of breast cancer plays an important role in prevention of mortality. By early detection the 5 years of survival rate will be increased approximately 85%, whereas later detection will decrease the survival rate about 5.6%[5,6,12]. American Cancer Society (ACS) recommended breast cancer screening methods, that includes breast self-examination, clinical breast examination and Mammography[1,3-5,10,12-14].

Among the three methods, breast self-examination is the simple, quick and cost-free procedure for early detection of breast cancer[1,4-6,12,13,15-17]. American Cancer Society (ACS) and leading cancer agencies recommended the monthly practice of breast self-examination[9,10]. BSE can help screen for tumors, cysts, and other abnormalities in the breasts[14]. According to studies, approximately 80-90% of breast masses are discovered by affected women by themselves (breast self-examination) [10].

On comparing clinical breast examination and mammography, clinical breast examination is the cost-effective procedure performed by physician/Nurses. Every woman at their 20's should start having clinical breast examination and the test should be repeated for every 3 years and at 40's once in every year is recommended[1,3].

According to study breast cancer screening with mammography/mastography, a cost-effective procedure reducing mortality rate and helps to identify the required treatment in women with breast cancer[1]. American College of Radiology and American Cancer Society (ACS) recommends yearly screening of breast cancer with mammography technique at starting of their 40's[18].

Thus, Women should do a breast self-exam

once a month, every month. Women who are still menstruating (having a regular period) should perform a breast self-exam after their period. Women who have stopped menstruating and those who have very irregular periods can pick a day each month[10,19].

Awareness about breast cancer is an important factor that has a major impact on the incidence and outcomes of the disease. For example, if female university students have sufficient knowledge about breast cancer, they can help prevent cancer in themselves and contribute to reducing the incidence of breast cancer in their community[14].

Therefore, we aimed to assess the "Awareness of breast Self Examination Among Female Students in a Tertiary care hospital", the objectives of this study were to:

METHODOLOGY

Study Design, Study Setting, and Period: A prospective cross-sectional study design was used to assess the level of knowledge and practice of BSE among the female students of various paramedical departments in tertiary care hospital. Data was collected from 2021-2022 from the study population.

Participants: The study was conducted among 311 participants in each group (pre & post). The target population was female students aged 18-25 years from the SRIHER campus of various medical & paramedical degree. We excluded students who are not willing to participate. An informed consent form is attached, confidentiality is maintained, and willingness to participate is assured.

Study Instrument: Data was collected with the help of pre-designed questionnaire from Madubogwu et al.,²⁴ study which contain 5 parts of questionnaire, they are

Social demographic characteristics.

Knowledge about breast cancer

Knowledge, Practice regarding (BSE)

Knowledge and practice of Clinical Breast Examination (CBE)

Knowledge and use of mammography.

Informed consent is obtained from all participants. Completion of this questionnaire takes about 10 minutes approximately.

Self-Administered Questionnaire:

The question consists of 5 parts; the first part has socio-demographic characteristics

The second part consists of four questions about knowledge of breast cancer and breast cancer prevention, source of information and family history is discussed.

The third part consists of four questions on knowledge and practice of breast self examination (BSE) to assess about BSE an useful tool for early detection, procedure of BSE and it further contains 13 questions on breast cancer screening practices to assess about the time and the frequency, the best way to do BSE, and the main reason that prevent students from practice.

The fourth part consists of five questions on knowledge and practice of clinical breast examination (CBE) to assess the knowledge about who & how to perform CBE.

The fifth part consists of six questions on knowledge and use of mammography to assess the usefulness of mammography, best age to perform and the barrier that prevents them from regular intervention required after 40 years.

DATA COLLECTION:

The questionnaire was given to the study population before the training program and the same questions was administered after the training program. Selection of students for assessment pre and post intervention was by random sampling. Student's knowledge and practice regarding breast cancer and breast self-examination were assessed among the pre-test questionnaire (before training) and the post-test questionnaire (after training). The training includes Educational information on breast cancer and breast self-examination (BSE), demonstration of BSE procedure orally, video of the procedure and leaflets (stepwise procedures of BSE performance were demonstrated with images) were distributed to the study population after obtaining written informed consent and the pre-test questionnaire. Pre-intervention and 4 weeks later post-intervention assessments were conducted to assess the changes in knowledge on breast cancer and practices of BSE. The four weeks time duration makes the individual to perform the BSE practically for them selves, because best time to perform BSE is monthly once, a week after their periods. The score was calculated by giving one point to the correct answer and zero to the incorrect answer. Then the points were summed, multiplied by 100 over the number of questions. If the score is

above 70%,the knowledge and practice about BSE is good and if its less than 70%,the knowledge and practice regarding BSE is low.

STATISTICAL ANALYSIS:

Data was analyzed using SPSS version 24 software. Descriptive data were represented as numbers and percentages. To find the significance between pre and post assessment of knowledge & practice regarding Breast self - examination, Clinical breast examination, Mammography. P value was calculated in ANOVA. The significance level was considered less than 0.05 and CI 95%.

ETHICAL CONSIDERATIONS:

This study was conducted after getting ethical clearance from IRB of the Sri Rama chandra Institute of Higher Education and Research (SRIHER). Ref No: CSP/19/NOV/81/405.During the field work, the objective of the study was clearly explained for the study participants the confidentiality of the data to be collected and the right not to participate was also assured.

RESULTS

A total of 311 participants were participated in the study and the response rate was 100%. The majority of the participants was between the age group of 18-22, 226 (72.6%). The majority of the participants was unmarried, 299 (96.1%). The study participants are selected equally from various departments, almost one third of the participants were studying at the UG level and most of the participants had urban residency, 269 (86.4%). The participants family head were majority a business person and the family head's income was mostly between the range of 61,663 - 1,23,321 , 147 (47.2%). Majority of the family heads were graduate. Socio-economic status of the respondents was majorlyfrom the lower middle group 158 (50.8%) followed by upper lower group 127 (40.8%).The detail of demographic characteristics can be seen in (table 1).

Most of the participants were not aware about knowledge and practice on breast cancer and breast self-examination on pre assessment but they were found to be 100% knowledgeable on post assessment. The main source of information about BSE was lecture 241 (77.4%) followed by social

Table 1: socio-demographic data of respondents

VARIABLES	N (%) [311]
Age(years)	
18-22	226 (72.6%)
23-25	85 (27.3%)
Marital status	
Married	12 (3.8%)
Unmarried	299 (96.1%)
Department	
Faculty of Medicine	42 (13.5%)
Faculty of Nursing	42 (13.5%)
Faculty of Pharmacy	42 (13.5%)
Faculty of Physiotherapy	42 (13.5%)
Faculty of Allied Health Science	42 (13.5%)
Faculty of Nutrition	42 (13.5%)
Faculty of Dental Science	42 (13.5%)
Others	17 (5.4%)
Area of Residence	
Urban	269 (86.4%)
Rural	42 (13.5%)
Others	0
Occupation of the Head of Family	
Legislators, Senior Officials & Managers	6 (1.9%)
Professionals	61 (19.6%)

Technicians and Associate Professionals	35 (11.2%)
Clerks	24 (7.7%)
Skilled Workers and Shop & Market Sales Workers	54 (17.3%)
Skilled Agricultural & Fishery Workers	11 (3.5%)
Craft & Related Trade Workers	12 (3.8%)
Plant & Machine Operators and Assemblers	101 (32.4%)
Elementary Occupation	7 (2.2%)
Unemployed	0
Education of the Head of Family	
Profession or Honours	8 (2.5%)
Graduate	102 (32.7%)
Intermediate or diploma	23 (7.3%)
High school certificate	148 (47.5%)
Middle school certificate	21 (6.7%)
Primary school certificate	9 (2.8%)
Illiterate	0
Total Monthly Income of the Family	
≥ 123,322	73 (23.4%)
61,663 - 123,321	147 (47.2%)
46,129 - 61,662	50 (16%)
30,831 - 46,128	35 (11.2%)
18,497 - 30,830	6 (1.9%)
6,175 - 18,496	0
≤ 6174	0

TABLE: 2 RESPONDENTS' KNOWLEDGE OF BREAST CANCER

VARIABLES	PRE	POST	P - VALUE
	N (%) [311]	N (%) [311]	
Ever heard of breast cancer			<0.001
Yes	196 (63%)	311 (99.9%)	
No	115 (36.9%)	0	
Source of information about breast cancer (multiple opinion)			
Books	77 (24.7%)	77 (24.7%)	
Media (TV/ Radio/Internet)	219 (70.4%)	219 (70.4%)	
Hospital	153 (49.1%)	153 (49.1%)	
Lecture	241 (77.4%)	311 (99.9%)	
Conference/Seminar	65 (20.9%)	65 (20.9%)	
Friends	58 (18.6%)	58 (18.6%)	
Others	0	0	
Has any member of your family been diagnosed of breast cancer?			
Yes	29 (9.3%)	29 (9.3%)	
No	282 (90.6%)	282 (90.6%)	
"			
If answer to the question above yes, what is her relationship to you? (n=29)			

Mother	0	0
Sister	10 (34.4%)	10 (34.4%)
Aunt	0	0
Cousin	0	0
Other	19 (65.5%)	19 (65.5%)

TABLE. 3: Respondents' Knowledge of Breast Self Examination

VARIABLES	PRE N (%) [311]	POST N (%) [311]	P- VALUE
Have you heard of BSE?			
Yes	104 (33.4%)	311 (99.9%)	<0.001
No	207 (66.5%)	0	
Do you know that BSE is useful tool for early detection of Breast cancer?			
Yes	183 (58.8%)	311 (99.9%)	<0.001
No	128 (41.1%)	0	
Have you been taught how to do BSE?			
Yes	42 (13.5%)	311 (99.9%)	
No	269 (86.4%)	0	
If answer to the question above is yes, who taught you? (multiple opinion)			
	(n=42)		
Parent	3 (7.1%)	3 (7.1%)	
Teacher	31 (73.8%)	31 (73.8%)	
Doctor	5 (11.9%)	5 (11.9%)	
Nurse	3 (7.1%)	3 (7.1%)	
Friend	0	0	
Others (author)	-	311 (99.9%)	

media 219 (70.4%) however only 42 (13.5%) are knowledgeable regarding the procedure involved in BSE (table 2) (table 3). Only 57 participants (18.3%) on pre assessment had a correct understanding of when to start performing BSE and 285 (91.6%) on post respectively. 54 (18.3%) had correct knowledge regarding the recommended frequency of performing BSE whereas on post 285 (91.6%) are knowledgeable and 14 (4.5%) on pre and 286 (91.9%) on post knew about the right timing for performing BSE. Most of the participants indicated that BSE should be done by doctor on pre but BSE has to be performed by the individual. Majority of the respondents indicated that they did not perform BSE on pre but on post 287 (92.2%) do perform BSE. Common reasons for not performing BSE were "not required" and "not interested". The detailed responses are given in (table 4).

CBE is the technique performed by trained nurse by using hands during a week after period each month, this knowledge lacks in our participants on pre assessment and the result showed highly knowledgeable responses on post assessment regarding CBE (table 5). Almost 145 (46.6%) were aware about mammography whereas 309 (99.3%) on post are aware but the right age and frequency to perform knowledge was lacking on pre assessment and found to be improved on post assessment (table 6).

Overall, our results indicated that participants was having poor knowledge on pre and increased knowledge on post regarding knowledge and practice about breast cancer and breast self-examination. Most of the participants have acknowledge to conduct an awareness campaign with large number of population at the university regarding breast cancer and breast self-examination

techniques as the best method to increase awareness among all the students in the university , thereby it helps for the early detection of breast cancer among them and their family.

DISCUSSION

The current study was conducted to assess the knowledge and practice understandings of female university students about breast cancer and breast

Table: 4 respondents practice of breast self examination

VARIABLE	PRE N (%) [311]	POST N (%) [311]	P-VALUE
At what age should BSE be started?			
From birth	0	0	<0.001
From puberty	57 (18.3%)	285 (91.6%)	
From 20 years	64 (20.5%)	18 (5.7%)	
From 40 years	19 (6.1%)	8 (2.5%)	
After menopause	11 (3.5%)	0	
No idea	160 (51.4%)	0	
How often should BSE be done?			
Daily	5 (1.6%)	0	<0.001
Weekly	19 (6.1%)	14 (4.5%)	
Monthly	54 (18.3%)	285 (91.6%)	
Yearly	69 (22.1%)	12 (3.8%)	
No idea	164 (52.7%)	0	
What is the best time to do BSE?			
During menstrual flow	23 (7.3%)	20 (6.4%)	<0.001
week after period	14 (4.5%)	286 (91.9%)	
During pregnancy	4 (1.2%)	5 (1.6%)	
During Breast feeding	57 (18.3%)	0	
No idea	213 (68.4%)	0	
BSE should be done by?			
Doctor	213(68.4%)	21 (6.7%)	
Trained nurse	43 (13.8%)	6 (1.9%)	
The individual	52 (16.7%)	284 (91.3%)	
Other	3 (0.9%)	0	
BSE is done by (multiple opinion)			
Inspecting the breast in the mirror	38 (12.2%)	284 (91.3%)	<0.001
Feeling the breast with the hand	58 (18.6%)	284 (91.3%)	<0.001
Feeling the armpit with the hand	38 (12.2%)	284 (91.3%)	<0.001
Doing ultrasound of the breast	75 (24.1%)	23 (7.3%)	
Mammography	112 (36%)	4 (1.2%)	
No idea	23 (7.3%)	0	
If you discover any abnormality during BSE, what will you do?			
Pray over it	30 (9.6%)	0	<0.001

Do some lab test	103 (33.1%)	23 (7.3%)	
See a doctor	180 (57.8%)	288 (92.6%)	
Do nothing	0	0	
Other	0	0	
what are the benefits of BSE?			
To be familiar with the breast texture	11 (3.5%)	0	<0.001
Early detection of breast cancer	152 (48.8%)	289 (92.9%)	
Detection of abnormal changes	144 (46.3%)	22 (7%)	
A good breast exercise	4 (1.2%)	0	
Do you practice BSE?			
Yes	3 (0.9%)	287 (92.2%)	<0.001
No	308 (99%)	24 (7.7%)	
A) if answer to question above is yes, how often?			
	(n=3)	(n=287)	
Weekly	0	4 (1.3%)	
Monthly	1 (33.3%)	276 (96.1%)	
Occasionally	1 (33.3%)	7 (2.4%)	
Rarely	1 (33.3%)	0	
B) If answer is no why not?			
	(n=308)	(n=24)	
Don't know how to do	244 (79.2%)	0	
Not aware of it	64 (20.7%)	0	
No reason	0	4 (16.6%)	
Not interest	0	20 (83.3%)	
If you have been practicing BSE, have you ever discovered any abnormality in your breast?			
	(n=3)	(n=287)	
Yes	0	0	
No	3 (99.9%)	287 (100%)	
I have not done BSE before			
	0	0	
A) If answer to question above is yes, what did you do? (n=0)			
Pray over it	0	0	
Did some lab tests	0	0	
Saw a doctor	0	0	
Did nothing	0	0	
Other	0	0	
Do you think BSE is a good practice?			
Yes	308 (99%)	311 (99.9%)	
No	3 (0.9%)	0	

TABLE: 5 RESPONDENTS KNOWLEDGE AND PRACTICE OF CLINICAL BREAST EXAMINATION

VARIABLE	PRE N (%) [311]	POST N (%) [311]	P-VALUE
Have you heard of clinical breast examination?			
Yes	61 (19.6%)	311 (99.9%)	<0.001
No	250 (80.3%)	0	
Do you know that CBE is a useful tool for detection of Breast cancer?			
Yes	67 (21.5%)	308 (99%)	<0.001
No	244 (78.4%)	3 (0.9%)	
CBE should be done by			
Doctor	246 (79%)	22 (7%)	
Trained Nurse	50 (16%)	286 (91.9%)	
The individual	0	3 (0.9%)	
Others	15 (4.8%)	0	
CBE done using			
Ultrasound	81 (26%)	4 (1.2%)	<0.001
Mammography	176 (56.5%)	22 (7%)	
Hand	48 (15.4%)	285 (91.6%)	
Others	6 (1.9%)	0	
How often should CBE be done			
Daily	3 (0.9%)	0	
Weekly	2 (0.6%)	0	
Monthly	24 (7.7%)	10 (3.2%)	
Yearly	105 (33.7%)	8 (2.5%)	
When abnormality is found on BSE			
No idea	74 (23.7%)	293 (94.2%)	<0.001
	103 (33.11%)	0	

TABLE:6 RESPONDENTS KNOWLEDGE AND USE OF MAMMOGRAPHY

VARIABLE	PRE N (%) [311]	POST N (%) [311]	P-VALUE
Have you heard of mammography?			
Yes	145 (46.6%)	309 (99.3%)	<0.001
No	166 (53.3%)	2 (0.6%)	
Mammography is a useful tool for the early detection of Breast Cancer			
Yes	148 (47.5%)	311 (99.9%)	<0.001
No	110 (35.3%)	0	
Don't know	53 (17%)	0	
At what age should mammography be started			

From birth	0	0	
From puberty	69 (22.1%)	2 (0.6%)	
From 20 years	22 (7%)	19 (6.1%)	
From 40 years	57 (18.3%)	288 (92.6%)	<0.001
After menopause	8 (2.5%)	2 (0.6%)	
No idea	155 (49.8%)	0	
How often should mammography be done (multiple opinion)			
Weekly	0	0	
Monthly	20 (6.4%)	0	
Yearly	69 (22.1%)	305 (98%)	<0.001
Every 3 years	23 (7.39%)	6	
When a lump is found on BSE&CBE	65 (20.9%)	305 (98%)	<0.001
No idea	134 (43%)	0	
Have you ever done a mammography			
Yes	3 (0.9%)	0	
No	308 (99%)	311 (99.9%)	
If no to above question why not (n=308)			
Not old enough	140 (45%)	17 (5.4%)	
Financial constraints	6 (1.9%)	1 (0.3%)	
Mammography not available	0	0	
Others	165 (53%)	293 (94.2%)	

self-examination. Over half of the participants in our study were aged 18-22. In early ages, Breast cancer incidence will be high above the age group of 35 whereas now the prevalence is seen at early ages is markedly worse, due to late detection. Thus, the awareness on BSE among young women in their twenties, such as university students is very significant which is compatible with the findings from other studies conducted at turkey and Jordan[24,30]. Students have knowledge about BC from different sources, the most common source is from lecture 241 (77.4%) followed by social media 219 (70.4%). This finding was consistent with the study conducted in Nnewi, university of Sharjah and at Gaza [14,22,24]. Since our respondents were a group of university students, who tend to be technology savvy. Almost all the participants are not aware about the BSE 207 (66.5% in prior assessment only 104 (33.4%) were aware about BSE and less number practiced it 3(0.9%) priorly whereas, on post assessment 100% of respondents are aware about BSE and almost three fourth 287 (92.2%) of them practiced BSE monthly. This findings is similar to the study conducted at university of Sharjah, Dehradun and

Jordan[14,19,30]. but it is controversial with the study conducted at Pakistan and Gaza [4,10] their study indicate that their students possess good knowledge about BC but they also do not practice BSE regularly. The majority of the respondents are not aware about the procedure to perform BSE priorly but on post assessment 311 (100%) of respondents were aware about the BSE technique, which helps to reduce the late detection of breast cancer. Thus, this study revealed poor knowledge about breast cancer and early detection technique's i.e., (BSE, CBE & Mammography) This result is consistent with three other studies[14,19,22,30]. The level of knowledge on awareness regarding CBE & Mammography technique was generally low on pre assessment among the respondents which is similar to the study conducted at Dehradun[19]. but the knowledge level about mammography technique was high in the participants of the study conducted at Nnewi[24]. However, the practice level of CBE and Mammography was very poor which is similar to the study conducted at Nnewi and Dehradun[24,19]. Mammography technique is still the gold standard of breast cancer screening thus it has to be promoted to improve the practice

level among both the female students of the tertiary care hospital and the general population.

Although early screening and diagnosis is not a reliable prevention method, but with early detection cure rates are comparatively high. BSE should be performed individually every month during the week after period from their puberty. But the CBE technique is more accurate than the BSE since it is performed by the trained nurse. Also, Mammography screening technique is the most accurate and it is performed every 1-2 years above the age group of 40 years. This easy, cost-free, non-instrumental method BSE, CBE and most accurate instrumental mammography technique is insufficiently implemented. The study results show that, even if the students are aware about the early detection technique, they lacked sufficient knowledge and regular practice. Thus, an encouraging finding from our study was that most students agreed that awareness about breast cancer and breast self-examination should be increased, by conducting free university-based training courses, Elective courses and overall awareness campaigns.

Student's paired t-test is assessed to find out the statistically significant difference between the pre assessment and post assessment by using SPSS software (Statistical Package for social sciences) Version 24. P value was calculated in ANOVA. Less than 0.05 is considered as significant. Participants knowledge on breast cancer and its early diagnosing technique's shows significant improvement on post assessment when compared to the pre assessment and the P value was found to be less than 0.001 considered as statistically significant.

LIMITATIONS

This study was subjected to various limitations. Firstly, the study participants were a female university student, however the response from illiterate population will be different which is not included in this study. Secondly, our participants are from medical background, therefore response bias cannot be completely neglected. Thirdly, we used a purposive sampling method therefore our study sample may not be representing all female students at the university. Fourthly, Respondents were given no reminder to practice BSE during the interval phase. All the data were self-reported by the respondents and no verification could be

done to assess the accuracy of the data given by respondents whether the claim of practicing BSE were true or not. Finally, involving participants from only one university is the major limitation of this study.

STRENGTH

The strength of this study is involving the participants between the age group of 18-25 female students from the tertiary care hospital because they being at the learning phase and they are responsible to spread awareness to majority of their family members and their community thereby they help to reduce the mortality rate by detecting the abnormal changes in their breast at the early stage.

CONCLUSION

Breast cancer is a disease in which cells in the breast grow out of control. It is the second leading cause for death; thus, prevention and early detection of the disease awareness has to be spread to the community. If the disease already exists, they should go for an regular treatment to prevent the spread of the cancer cells and also to increase the death rate. There are two important aspects in breast cancer prevention: early detection and risk reduction. A plan for the diagnosis and treatment of cancer is a key component of any overall cancer control plan. Its main goal is to cure cancer patients or prolong their life considerably, ensuring a good quality of life.

Women should go for a check-up every year to prevent getting breast cancer or any other cancer. There are many organizations that can help women to get her early detection test. Breast cancer can spread more faster if left and not cared about, if you are already been diagnosed with cancer, do not believe that you will be okay someday, it is very essential to undergo an appropriate treatment as per the physician's advice. No women should be ashamed to go and have an early detection test for her breast. No one wants to get a life-threatening illness. Thus, this study aims to spread the maximum awareness among female population regards the self-examination of breast cancer on regular basis, and if they are feeling symptomatic, they should undergo a clinical breast examination and the mammography technique for the prevention of life-threatening risks and to reduce the sufferings of the patient by early detection thereby reducing the mortality rate due to breast cancer, the leading cancer disease.

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