

A STUDY TO ASSESS KNOWLEDGE, ATTITUDE AND PRACTICE ON BREAST CANCER AMONG WOMEN IN GOVERNMENT GENERAL HOSPITAL

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ABSTRACT

Objectives: Breast cancer is the most frequent cancer in women worldwide and it accounts for 27% of all cancer cases among women in India. This study aims to assess the awareness of the patients regarding the breast cancer and also to check their knowledge toward the symptoms of breast cancer as well as the breast self-examination process. This study also determines the attitude of patients regarding the breast cancer and breast self-examination.

Methods: A prospective educational study was done using a pre-designed questionnaire on 523 patients in a tertiary care teaching hospital for a period of 6 months. All women greater than 20 years admitted in the Department of General Medicine and General Surgery in-patient female ward of SVRRGGH were included in the study.

Results: Out of 523 women, a greater proportion respondents 515 (98%) had poor knowledge of breast cancer. Two hundred and eighty-one (53%) show positive attitude while 225 (43%) show neutral attitude and 17 (4%) show negative attitude toward breast cancer. Only 18 (0.3%) know how to perform breast self-examination while the remaining patients have never performed the breast self-examination. Two hundred and one (38%) have agreed to consult a doctor if they found any lumps in the breast whereas the remaining did not respond. After the counseling session with patients, their knowledge regarding the above problems related to breast cancer has significantly increased.

Conclusion: Majority of the participants had poor knowledge of breast cancer as well as low level of practice of breast cancer screening procedures. However, patients do have a positive attitude toward the breast cancer which can help to detect the cancer in early stages. Hence, a greater focus on providing breast cancer education programs can create awareness among women in respect to screening programs which, in turn, can decrease the risk of death due to its late discovery.

Keywords: Knowledge, attitude, practice, Breast self-examination, Clinical breast examination.

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INTRODUCTION

Cancer is the 2nd leading cause of death worldwide and is estimated to account for 9.6 million deaths in 2018. Lung, prostate, colorectal, stomach, and liver cancer are the most common types of cancer in men, whereas breast, colorectal, lung, cervix, and thyroid cancer are the most common among women[1-3].

Breast cancer is the most frequent cancer in women, impacting 2.1 million women every year, causing the greatest number of cancer-related deaths in women. In 2018, it is estimated that 627,000 women died from breast cancer which is nearly 15% of all cancer deaths in women. Breast cancer rates used to be higher among women in more developed regions but these rates are increasing in nearly every region globally [2].

As per NICPR in 2018, 162,468 new cases and 87,090 deaths were reported for breast cancer in India [3]. One of the recent studies of breast cancer risk in India reveals that 1 in 28 women develop breast cancer during their entire lifetime. The incidence/mortality ratio is 0.48 in India which is higher when compared with other countries [4].

In our socioeconomic setup, the only feasible solution to promote early detection of breast cancer is to create breast cancer awareness among female population. Apart from lack of knowledge, it is equally important to consider other social and cultural barriers which delay help seeking [5]. This is only possible, if we know the present level of

knowledge, attitudes, and practices of female population toward breast cancer [6].

Late diagnosis is attributed to lack of awareness and non-existent BC screening program in India. Early detection of BC and early treatment increases the chance of survival. Breast self-examination (BSE), clinical breast examination (CBE), and mammography are different methods for screening of early breast cancer [5].

Here, in this study, We provided complete information regarding breast cancer and breast self-examination to the patients who have lack of knowledge regarding the disease. Breast self-examination provides an inexpensive method for early detection of breast tumors, thus good knowledge and consistent practice could protect women from severe morbidity due to breast cancer. To promote early detection, We tried to improve the knowledge and attitude of breast cancer by promoting breast cancer awareness.

METHODS

Study design

This was a prospective educational study.

Study site

The study was performed at female General Medicine and General Surgery Departments in Sri Venkateswara Ramnarayan Ruia Government General (SVRRGGH) tertiary care teaching hospital, Tirupati.

Study duration

The study duration was 6 months.

Study size

A total of 523 patients from female general medicine and general surgery were included in this study.

Study criteria

Inclusion criteria

The following criteria were included in the study:

- All women >20 years.
- Department of general medicine and general surgery in-patient wards.

Exclusion criteria

The following criteria were excluded from the study:

- Age ≤20 years.
- Who were not willing to participate in the study.

Ethical approval

Ethical approval was obtained by Institutional Ethical Committee Sri Padmavathi School of Pharmacy SPS/2019-2020/PD06 and permission obtained from the head of the Department of General Medicine and General Surgery of SVRRGGH, Tirupati.

Method of data collection

This study was carried out after obtaining the permission from Institutional Review Board, Sri Padmavathi School of Pharmacy, Tiruchanoor, Tirupati, A.P, India. All women greater than 20 years admitted in the Department of General medicine and General Surgery in-patient female ward of SVRRGGH were included in the study.

A pre-designed questionnaire (pro forma) was used for collecting the data from women who agreed to participate in the study. The questionnaires were delivered from other published studies dealing with the similar topic as well as from our own experience.

This study includes 22 questions about knowledge, attitude, and practice which excludes sociodemographic details contains five questions [5-11]. In those, 12 questions are about knowledge toward breast cancer [4,6,8-17], 10 questions are about attitude and practice toward breast cancer [17-20].

These 12 questions about knowledge toward breast cancer were further divided into four categories they are:

- General knowledge regarding breast cancer.
- Signs and symptoms.
- Risk factors assessment.
- BSE and CBE knowledge on breast cancer.

A score of 1 when respondent answer YES to any question. Answers of NO are given a score of 0. According to blooms classification, cutoff points for knowledge score are as follows:

1. Good knowledge a score of 80–100%.
2. Satisfactory knowledge a score of 60–79%.
3. Poor knowledge a score <60% of response [17].

The score for response to attitude is given as yes/no/do not know and their scorings are.

Positive attitude – Yes (+1).

Neutral – Do not know (0)

Negative attitude – No (-1) [6].

Here, we are assessing the patient's awareness and providing the necessary information to them regarding breast cancer and explaining the need of self-examination to detect the condition in early stage irrespective of their clinical condition and identify the reasons for not practicing the preventive measures. Thus by this, we are gathering their knowledge before (pre)

and after (post) counseling for 5 days on every alternative day where the patient's knowledge on the last day was taken into consideration to check if this can help the patient for their better well-being.

RESULTS

Our study consists of 530 patients, out of them 7 patients showed interest in the beginning but they withdraw in the middle. Hence, a total of 523 patients willingly participated in the current study where their knowledge regarding the signs and symptoms, self-examination procedures of breast cancer were evaluated and also their attitude toward the breast cancer is also assessed. As well as, the practice methods were also discussed.

Out of 523 patients, 15 (3%) are with breast cancer whereas 509 (97%) are non-breast cancer patients (Table 1).

Out of 523 patients, major age group participating in the study belong to 20–30 [116 [22%]] and 31–40 [115 [22%]] followed by least participating age group is >70 years [11 [2%]] (Table 2).

In this study, out of 523 patients married women, 462 (88%) have participated, followed by unmarried 37 (7%), widow 23 (4%), and divorced 3 (1%) (Table 3).

Here, out of 523 patients, most participating group is housewives 293 (56%) and least participating group is nurses 9 (2%) (Table 4).

Out of 523 patients, most of them were uneducated 381 (73%) who have participated in this study whereas the least participating group are graduate 19 (4%) (Table 5).

Out of 523 patients, the data are collected from patients who belong to rural area 386 (74%), patients from urban area around 137 (26%) (Table 6).

In this study, out of 523 patients, majority of the people have not heard about the breast cancer 333 and those who have heard also do not possess the proper knowledge 190 (Table 7).

Out of 523 patients, only few people know about the symptoms of the breast cancer mainly about discharge from nipples or discoloration of

Table 1: Total number of patients

S. No.	Condition of patients	Number of patients	Percentage
1.	With breast cancer	15	3
2.	Without breast cancer	509	97
	Total	523	100

Table 2: Classification based on age

S. No.	Age (years)	Number of patients	Percentage
1.	20–30	116	22
2.	31–40	115	22
3.	41–50	128	25
4.	51–60	99	19
5.	61–70	54	10
6.	>70	11	2
	Total	523	100

Table 3: Distribution based on marital status

S. No.	Marital status	Number of patients	Percentage
1.	Married	462	88
2.	Unmarried	35	7
3.	Widow	23	4
4.	Divorced	3	1
	Total	523	100

the breast lumps in the breast that might be painful or painless, (12) before the counseling. After counseling, the patient got to know about most of the symptoms (Table 8).

Out of 523 patients, main risk for the patients participated in the study is increase in age 218 (39%), followed by hormones taken 136 (24%), and least risk is due to smoking, infertility drugs 1 (0%) (Table 9).

Out of 523 patients, only few patients thought that they heard about BSE and it is useful whereas maximum patients do not know how to practice the BSE or at what age it is done or who performs BSE (Table 10).

Out of 523 patients, 3 patient (1%) have good knowledge, only 5 (3%) with satisfactory knowledge, and 515 (98%) have poor knowledge regarding the breast cancer (Table 11).

In this study, majority of the patients did not show positive attitude toward the breast cancer some patients do not bother about the

Table 4: Distribution based on occupation

S. No.	Occupation	Number of patients	Percentage
1.	Housewife	293	56
2.	Student	29	6
3.	Working women		
	i. Coolie	65	12
	ii. Farmer	16	3
	iii. Daily wages	111	21
	iv. Nurses	9	2
	Total	523	100

Table 5: Distribution based on education

S. No.	Education	Number of patients	Percentage
1.	Uneducated	381	73
2.	High school	14	14
3.	Some college	47	9
4.	Graduate	19	4
	Total	523	100

Table 6: Distribution based on residence

S. No.	Residence	Number of patients	Percentage
1.	Rural	386	74
2.	Urban	137	26
	Total	523	100

Table 7: General knowledge regarding breast cancer

S. No.	Questions	Pre	Post
1.	Have you ever heard of breast cancer		
	• Yes	190	523
	1. From TV	72	0
	2. Health-care centers	44	0
	3. Family and friends	74	0
	• No	333	0
2.	Have you or any family member had breast cancer		
	1. Yes	26	26
	2. No	497	497
3.	Do you know how to perform breast self-examination		
	1. Yes	18	523
	2. No	505	0
4.	Have you heard about screening programs		
	1. Yes	12	523
	2. No	511	0

Table 8: Signs and symptoms of breast cancer

S. No.	Question	Pre	Post
1.	Changed nipple position	3	116
2.	Discharge or bleeding from nipple	12	359
3.	Discoloration of the breast	12	399
4.	Pain in one of breasts or armpit	10	217
5.	Lump or thickening in breast or under armpit	12	227
6.	Painless lump or thickening in breast	12	306
7.	Redness of breast skin	10	100
8.	Changes in the size and shape of breast	7	254
9.	Swelling or enlargement of the breast	9	358
10.	Ulceration of the breast	3	52
11.	Weight loss	3	23
12.	Do not know	490	0

Table 9: Risk factor assessment

S. No.	Questions	Patients
1.	Positive family history present	26
2.	Increase in age	218
3.	Smoking	1
4.	Alcohol consumption	12
5.	Frequent use of oral contraceptive pills	49
6.	Infertility drugs	1
7.	Hormones taken	136
8.	Trauma	9
9.	Breast injury in past	5
10.	High fats intake	42
11.	Obesity in your diet	79
12.	Early onset of menarche	0
13.	Number of births (first childbirth at age)	0
14.	Late menopause – age	0

Table 10: BSE and CBC knowledge on breast cancer

S. No.	Questions	Pre	Post
1.	Is breast self-examination important		
	1. Yes	43	523
	2. No	0	0
	3. Do not know	480	0
2.	BSE should be done by		
	1. Doctor	512	0
	2. Trained nurse	0	0
	3. The individual	10	523
	4. Others	1	0
3.	Do you think BSE helps in early detection of breast cancer		
	1. Yes	38	523
	2. No	0	0
	3. Do not know	485	0
4.	The frequency of practicing BSE		
	1. Daily	0	0
	2. Weekly	0	0
	3. Monthly	6	523
	4. Yearly	0	0
	5. Do not know	520	0
5.	At what age should BSE be commenced		
	1. From 15	0	0
	2. From 20	0	0
	3. Above 30	0	0
	4. At any age	5	523
	5. Do not know	518	0
6.	What is the best time to do BSE?		
	1. Any time	0	111
	2. During menstrual flow	0	0
	3. A week after period	9	412
	4. During pregnancy	0	0
	5. During breast feeding	0	0
	6. Do not know	514	0

Table 11: Scoring to determine the type of knowledge of patients

S. No.	Type of knowledge	Pre		Post	
		Number of patients	Percentage	Number of patients	Percentage
1.	Good knowledge (80–100%)	3	1	523	100
2.	Satisfactory (60–79%)	5	1	0	0
3.	Poor knowledge (<60%)	515	98	0	0
	Total	523	100	523	100

Table 12: Attitude toward breast cancer

S. No.	Questions	Pre	Post
1.	Do you think it is a curable disease		
	1. Yes	17	523
	2. No	0	0
	3. Do not know	506	0
2.	Do you think you have any risk factor		
	1. No risk factor	0	156
	2. 1 risk factor	0	267
	3. 2 risk factor	0	88
	4. 3 risk factor	0	8
	5. >3 risk factor	0	4
	6. Do not know	523	0
3.	Do you think it occurs in one breast only		
	1. Yes	0	0
	2. No	11	523
	3. Do not know	512	0
4.	Do you think self-examination is helpful		
	1. Yes	13	523
	2. No	0	0
	3. Do not know	510	0
5.	Time period to consult a doctor if you discover a breast lump		
	1. Immediately	201	520
	2. Within a month	18	0
	3. 1–3 months	17	0
	4. Not bother at all.	287	3
6.	What do you prefer		
	1. Government	519	519
	2. Private hospitals	4	4

breast cancer at all whereas some patients showed positive attitude by properly responding (Table 12).

Out of 523 patients, about 281 (27%) patients showed positive attitude while 225 (21%) patients showed negative attitude and 9 (5%) showed neutral attitude (Table 13).

In this study, only 34 patients have had CBE in which 27 had mammography, 4 had ultrasound, and all patients said that they would consult a doctor if had any symptoms. Of total 200 patients, 11 are the patients with breast cancer (Table 14).

In this study, out of 523 patients, majority of the patients for not practicing the preventive measures is avoidance of fear and anxiety is 447 (30%) followed by lack of awareness 441 (30%), feeling that they cannot get cancer, thinking that cancer therapy is expensive, 76 (13%) are the major reasons and 6(1%) patients showed no response (Table 15).

DISCUSSION

Breast cancer is one of the leading causes of death as it is detected in the late stages in India. Lack of awareness regarding the risk factors and breast self-examination acts as the causating factor for late diagnosis. It occurs more in women belonging to developing countries when compared to developed countries and is a leading cause of mortality. Hence, increasing the awareness regarding the screening procedures can help in reducing mortality. In this study, patients knowledge is assessed and appropriate information is provided to them.

The results of this study suggest that the patients have poor knowledge of breast cancer as 515 patients do not know about the breast cancer signs and symptoms and self-examination procedures. This may partly explain the late presentation seen in women with the disease which was supported by Okabia *et al.* [12] and Yerpude *et al.* [9] and Ewaid *et al.* [8] this low level of knowledge may be an predisposing factors for increased risk factors supported by Turuk *et al.* [6].

In our current study, the patients more were in the age group of 40–50 years {128(25%)} followed by 20–30 years {116(22%)}, 31–40 years {115(22%)}, 51–60 years {99(19%)}, 61–70 {54 (10%)}, and >70 years {11(2%)}, respectively. There is an age related risk in advanced group so, age is taken for patients which was supported by Haji-Mahmoodi *et al.* [7]. Age is also related to the level of awareness as described by Yerpude *et al.* [9].

In our present study, the participants who were married are 462 (88%), followed by unmarried 35 (7%), widow were 23 (4%), and divorced 3 (1%). Here, marital status is related to the significant of adherence to BSE practice as stated by Heidari *et al.* [10] and Gilani *et al.* [11].

In this study, majority of patients were housewives 381 (73%) followed by patients who were at some college 47 (9%), whereas least were graduates 19 (4%). Here, the low educational level acts as reason for the poor knowledge supported by Haji-Mahmoodi *et al.* [7] Heidari *et al.* [10], Gilani *et al.* [11], and Yerpude *et al.* [9].

Out of 523 patients who participated in our study, 386 (74%) belong to rural area whereas 137 (26%) belong to urban area. The residence area is significant in determining the adherence to BSE practice supported by Heidari *et al.* [10] and Gilani *et al.* [11].

In our present study, out of 523, 190 patients have heard about the breast cancer and only 12 know how to perform BSE which is very less when compared to the study conducted by Rafique *et al.* [13] and Khadilkar *et al.* [14] among these 523, 511 patients were not aware of BSE which is much less than study done by Yerpude *et al.* [9] and Veena *et al.* [4].

Among 523 patients, many people do not know about the symptoms of breast cancer supported by Khadilkar *et al.* [14], whereas only 12 patients know about the painless lumps, discharge or bleeding from nipples, and pain in one breast. Here, < 10% of patients know about the risk factors, whereas some do not know any risk factors at all which might be in relation to the educational status supported by Turuk *et al.* [6] and Gilani *et al.* [11], only 26 (0.5%) patients have positive family history which is very less than the study done by Azubuike *et al.* [15] so the best way for early detection is providing the knowledge to the patients similar to Khanjani *et al.* [16], according to our study, more patients presented with single risk factors 256 followed by 88 patients with two risk factors and three risk factors whereas 156 patients presented with no risk factor which is supported by Gebrehiwot *et al.* [17].

In our study, out of 523 patients, 281 (53%) patients showed positive attitude whereas 225 (43%) showed negative attitude towards the breast cancer and screening practices in contrast to study conducted by Gilani *et al.* [11] where all participants showed positive attitude and less compared to study done by Rosmawati *et al.* [20] and Rafique *et al.* [13],

Table 13: Scoring based on the attitude of the patient

S. No.	Type of knowledge	Pre		Post	
		No. of patients	Percentage	No. of patients	Percentage
1.	Positive	281	53	523	100
2.	Negative	225	43	0	0
3.	Neutral	17	4	0	0
	Total	523	100	523	100

Table 14: Practice on breast cancer

S. No.	Questions	No. of patients
1.	Have you ever performed BSE/CBE?	
	1. Yes	12
	2. No	511
	If yes how many times	Once (11) Many times (1)
2.	If you discover any abnormality during BSE, what will you do	
	1. Pray over it	0
	2. Do some laboratory tests	0
	3. See a doctor	523
	4. Do nothing	0
	5. Others (specify)	1
3.	CBE is done using	
	1. Ultrasound	4
	2. Mammography	27
	3. Hand	9
	4. Others (specify)	11
	5. No response	479
4.	Have you ever had breast cancer in your life?	
	1. Yes	15
	2. No	515

Table 15: Reasons for not practicing the preventive strategies

S. No.	Questions	Total
1.	Is breast cancer embarrassing?	12
2.	I do not want to be examined by a male doctor.	4
3.	Avoidance of fear and anxiety	447
4.	Is not feeling any pain (so not necessary)	49
5.	It's expensive.	245
6.	Lack of awareness	441
7.	Feeling that I can't get cancer	286

here, only 201 (38%) agreed for early screening method which less in number when compared to study conducted by Gilani *et al.* [11].

In this study, only 12 (<1%) patients went for screening programs which is less when compared to study done by Gilani *et al.* [11] very less number of patients showed good practice which might be due to lack of knowledge of screening methods similar to Azubuike *et al.* [15].

There are many reasons that act as the barrier in screening practices for the early detection of the breast cancer similar to Siddhart *et al.* [5], the main reasons for not practicing preventive measures are avoidance of fear followed by lack of awareness and feeling that I cannot get cancer which was similar to study conducted by Azubuike *et al.* [15].

In our study, out of 523 patients, 515 patients have poor knowledge, 5 with satisfactory knowledge, and 3 with good knowledge before (pre) providing the information through PILs. Later (post), they showed improvement in their level of awareness to the signs and symptoms, risk factors, as well as the screening programs. Improvement of knowledge and practice about screening programs and risk factors may help in prevention and early detection of breast cancer.

CONCLUSION

This study revealed poor knowledge of breast cancer and the screening methods as well as low level of practice of breast cancer screening

among women. While tendency for positive attitude, preventive practice could be said to be high, there still exists superstitious believes and ignorance that could hinder good practice. We conclude that the major identified reason for not practicing preventive strategies was low level of awareness which might depend on level of education. Here, we intend to create awareness through counseling sessions and also with the help of PILs. Our study strongly recommends a greater focus on breast cancer education programs to improve knowledge and to create awareness among women to prevent the deaths due to late stage discovery of breast cancer.

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AUTHORS' CONTRIBUTIONS

All the authors played an equal role in conception, data collection, data analysis, methods, results, article drafting, and final manuscript preparation under the supervision of our guide Mrs. G. Divya.

CONFLICTS OF INTEREST

The authors affirm no conflicts of interest, finance, or otherwise.

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