Knowledge, attitude and practice of breast self-examination among women attending a tertiary care hospital in Karnataka - A cross-sectional study

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Abstract

Background: Breast cancer is the most common cancer among females (47.8/1 lakh) and one of the leading causes of mortality (13.6/1 lakh) among the cancer patients in the world [1]. There are screening methods for early diagnosis of breast cancer. One among that is breast self-examination, which is easy, affordable and acceptable by the population.

Objectives: 1. To assess the knowledge, attitude and practice of breast self-examination among the women attending KIMS hospital Hubballi. 2. To determine the risk factors of breast cancer among the study participants

Methods: A cross-sectional study was conducted among the women attending various departments of KIMS Hospital Hubli, over a period of 1 month (July-August 2022). The study participants were females above 18 years of age. Sample size was calculated to be 200. Data was collected by predesigned and pretested questionnaire and it was entered in MS Excel and analysed using SPSS software.

Results: 201 study participants were included in the study, among these 66% were belonging to rural background, 40.3% belonged to the age group 31 to 45 years. Majority (52%) had inadequate knowledge, 65% had positive attitude and only 15.9% of the study population performed breast self-examination regularly. The study revealed association between Knowledge of breast cancer and education, socio economic conditions.

Conclusion: According to our study most of the participants were not aware about breast self-examination. It is evident that some factors like education, socio-economic are the main factors influencing the knowledge of BSE.

Key words: Knowledge, Attitude, Practice, BSE- Breast Self-Examination, risk factors

Introduction

Breast cancer is the most common cancer in the world and the leading cause of mortality due to cancer among females [2].

In the year 2020, an estimated 2.3 million new cases were there, which represent 11.7% of all cancer cases. It is the fifth leading cause of cancer worldwide with 6,85,000 deaths [3].

In India also the most common cancer among females is breast cancer. 1,78,361 new cases of breast cancer were diagnosed in India in 2020, which represents 13.6% of all cancer cases. In India 90,480 women died due to breast cancer in 2020[4].

The risk factors of breast cancer are increasing age, family history, nulliparity, early menarche, late menopause, prior breast biopsy, high fat diet, obesity, radiation exposure, oral contraceptives etc [5].

The warning signs of breast cancer are a lump in the breast, alteration in size, shape or appearance of a breast, dimpling, redness or other alteration in the skin over the breast, abnormal nipple discharge etc.

Breast cancer is a disease which can be cured if diagnosed at an early stage. Knowledge about the warning signs will allow the early diagnosis and identifying the risk factors can reduce the risk of developing breast cancer in the future.

BSE is an easy, quick, convenient, private, cost free, and safe practice for early diagnosis of breast cancer and treatment.

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Regular practice of BSE will allow women to identify any changes in their breast, thus helping early detection of breast cancer[6]. Despite its importance in early detection of breast cancer, it is practiced by small scale of population due to inadequate knowledge.

Previous studies shows that the factors affecting the knowledge and practice of breast self-examination were age, marital status, level of education, information of BSE, medical background, access to internet, source of information, and level of income[7].

This study is done to assess the knowledge, attitude and practice of breast self-examination among women attending a tertiary care hospital in Hubballi.

Methodology

A cross-sectional study was conducted among patients attending OPDs of different departments in Karnataka Institute of Medical Sciences Hubballi, over a period of 1 month in July-August 2022. The study participants were women above 18 years attending the OPDs. Convenience sampling was used and sample size was estimated to be 200. Those individuals who did not give consent and those who were severely ill were excluded from the study.

Data was collected using predesigned, pretested and semi-structured questionnaire. The questionnaire consisted of 4 parts – a) Socio-demographic details of the study participants, b) Risk factors of breast cancer, c) Knowledge about risk factors and warning signs of breast cancer and d) Knowledge, attitude and practice of Breast Self-Examination.

The questionnaire was validated through pilot study and changes were made accordingly. Informed consent was taken from study participants. Institutional ethical clearance was obtained before starting the study.

The data was entered in Microsoft excel and analysed using SPSS software. The results were presented as frequencies and percentages. Chi square test was used to test the association between qualitative variables. P value less than 0.05 was taken as significant.

Results

A total of 201 study participants were included in the study, among that 40.3% belonged to the age group of 31 to 45 years and 36.8% belonged to 18 to 30 age group. 66% of the study participants were residing in rural area, 23.9% were illiterate and about 31.3% had completed their high school education. 58.1% of the participants were unemployed and 26.9% were unskilled or semiskilled workers. Modified BG Prasad classification was used to calculate socio economic status. According to the classification, 10.9% belonged to class 1 and 20.4% belonged to class 5 socio economic class. 77.6% of the study participants were

married and 15.4% were unmarried. Table 1 shows the socio-demographic details of the study participants in detail.

Table 1: Socio-demographic details of the study participants

Variable		Frequency	Percentage
Age	18 - 30	74	36.8
	31 - 45	81	40.3
	46 - 60	40	19.9
	>60	6	3.0
Residence	Urban	69	34
	Rural	132	66
Education	Illiterate	48	23.9
	Primary and middle school	56	27.9
	High school and higher secondary	63	31.3
	Graduate and postgraduate	34	16.9
Occupation	Unemployed	117	58.1
	Unskilled and semi-skilled workers	54	26.9
	Skilled workers	10	5
	Semi-professional and professionals	20	10
Ses	Class 1	22	10.9
	Class 2	36	17.9
	Class 3	56	27.9
	Class 4	46	22.9
	Class 5	41	20.4
Marital Status	Unmarried	31	15.4
	Married	156	77.6
	Divorced	2	1.0
	Widow	12	6.0

Risk factors assessed for breast cancer is as follows. 22.9% of the study participants attained menarche before the age of 12 years and 3.5% had attained menopause after the age of 55 years. 18.9% of the study participants were nulliparous and average duration of breast feeding was less than 1year among 8%. 16.9% of the study participants gave history of substance abuse (alcohol, smoking and tobacco). 20.4% gave history of increased intake of fatty food. 27% of the study participants gave history of intake of oral contraceptives, 26% had history of lump in the breast and 32% had history of radiation exposure.

Table 2: Mean, median and standard deviation of the scores of knowledges, attitude and practice.

	Knowledge	Attitude	Practice
Mean	9.33	4.24	2.82
Median	8.00	4	2.00
Standard deviation	6.169	3.234	2.494

Questions related to knowledge, attitude and practice of breast self-examination were given scores. The mean of the scores was used to classify knowledge, attitude and practice. Mean, median and standard deviations of the scores are given in Table 2.

Those study participants with total score for knowledge above 10 were having adequate knowledge. 47.3% of the participants had adequate knowledge and 52.7% had inadequate knowledge.

65% had positive (>4 score) attitude towards best self-examination. Practice was classified as good (>3 score) and bad, only 15.9% of the study participants were regularly and correctly performing breast self-examination.

Table 3: Categorisation of knowledge, attitude and practice of breast self-examination based on mean scores.

Variable		Frequency	Percentage
Knowledge	Adequate knowledge	95	47.3
	Inadequate knowledge	106	52.7
Attitude	Positive	130	65
	Negative	71	35
Practice	Bad	169	84.1
	Good	32	15.9

Table 3, depicts the KAP regarding breast self-examination.

Table 4: Showing association of knowledge about Breast self-examination with education, place of residence and socio-economic status

Variable		Adequate knowledge	Inadequate knowledge	Total	P value
Education	Graduate and post graduate	24 (70.6%)	10 (29.4%)	34 (100%)	0.000
	High school and higher secondary	44 (69.8%)	19 (30.2%)	63 (100%)	
	Primary and middle school	18 (32.1%)	38 (67.9%	56 (100%)	
	Illiterate	9 (18.8%)	39 (81.3%)	48 (100%)	
	Total	95 (47.3%)	106 (52.7%)	201 (100%)	
Residence	Rural	53 (40.2%)	79 (59.8%)	132 (100%)	0.048
	Urban	42 (47.3%)	27 (39.1%)	69 (100%)	
	Total	95 (47.3%)	106 (52.7%)	201 (100%)	
Socio-economoc status	Class 1	17 (77.3%)	5 (22.7%)	22 (100%)	0.016
	Class 2	18 (50%)	18 (50%)	36 (100%)	
	Class 3	27 (47.5%)	30 (52.6%)	57 (100%)	
	Class 4	20 (44.4%)	25 (55.6%)	45 (100%)	
	Class 5	13 (31.7%)	28 (68.3%)	41 (100%)	
	Total	95 (47.3%)	106 (52.7%	201 (100%)	

Knowledge about breast self- examination showed significant association with education, place of residence and socio-economic status of the study participants as shown in Table 4.
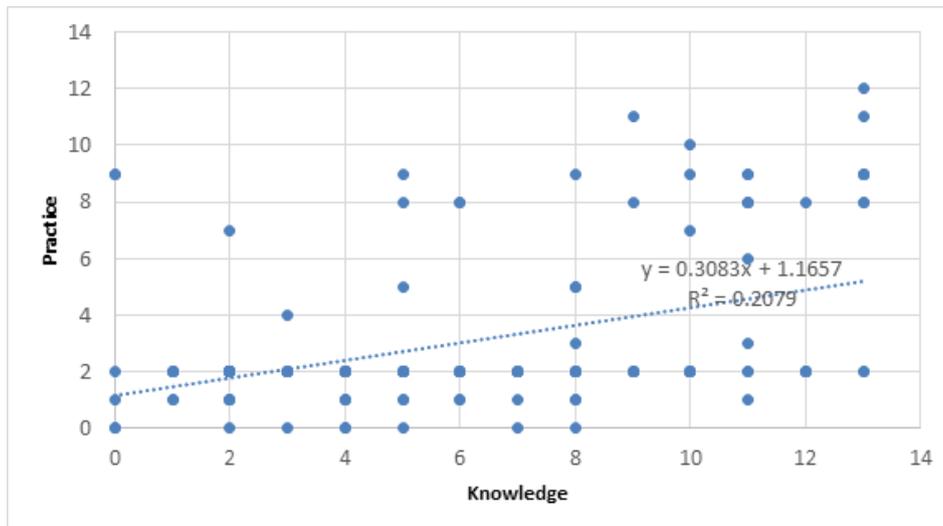

$y = 0.3083x + 1.1657$
$R^2 = 0.2079$

Figure 1: Showing correlation between knowledge and practice of breast self-examination

Knowledge and practice of breast self-examination show positive correlation as shown in Figure 1.

Discussion

With the increasing cases of Breast Cancer in the world and need for early diagnosis, assessing the knowledge, attitude and practice of breast self-examination is important. This study was done to assess the risk factors of breast cancer and also knowledge, attitude and practice of breast cancer among women aged above 18 years.

In the current study, 47.3% of the study participants had adequate knowledge about Breast Self-Examination, compared to 24.6% in a study done by Dolar Doshi et al in Hyderabad[8].

71.9% of study population have not heard about BSE, compared to 62.1% in a study done in Turkey by OzgulKarayurt et al[9].

Majority (10.4%) of them have heard about BSE through health care providers and (6%) of them have heard it through awareness programmes. In contrast to the study by Kibret Asmare et al., which shows 66% of participants heard about breast self-examination and their main source of information was television/radio (43.2%), health institution/profession (30.8%), peer group, and school training (15.6%) and from newspaper and internet (10.2%)[10].

Knowledge about breast self-examination in the present study was affected by educational status, whether staying in urban or rural area and also the socio-economic status of the study population.

Knowledge about risk factors was significantly associated with educational status of the study population in the current study similar to a study done in Mumbai by RajanKumar et al[11].

In the current study, 65% of the study population had positive attitude towards breast self -examination, compared to 5% in a study done by Dolar Doshi et al in Hyderabad[8] 15.9% of the study participants were performing breast self-examination regularly and correctly in the current study, compared to 12.3% in a study done by Dolar Doshi et al in Hyderabad[8].

In another study done in Sharjah by Syed Rahman et al, 27.7% of the study participants performed breast self-examination[12].

About 14.4% women in the current study population had practiced breast self-examination before, while rest of them had not performed it. In contrary, the study by Kibret Asmare et al., shows 45.8% had performed breast self-examination[10].

In the current study, about 9% women performed BSE when it comes to their mind, whereas 3.5%of them performed just a week after each menses. In contrary, the study by Kibret Asmare et al., shows 52.4% performed BSE when it comes to their mind, whereas 31% performed it just a week after each menses[10].

Majority of the study population i.e., 77.1% did not perform BSE since they do not know how to perform BSE, whereas 14.9% of them told they had no problems with their breast and hence didn't perform BSE.

The main reason for not practicing BSE in the present study is because they are not aware of how to do it (77%), compared to 36% in a study done in Sharjah by Syed Rahman et al[12].

Knowledge and practice of breast self-examination had a positive correlation, indicating a decrease in knowledge was one of the main reasons for the decrease in practicing of breast self-examination among the study participants.

Recommendations

Practice of BSE among the general population can be improved if regular health education programmes are conducted. It should be conducted with help of health workers and at each village or subcentre levels. Health care workers like ASHAs and ANMs should be involved in the programme, so that it can reach all the women in the country. Women should be encouraged for approaching health facilities if they find any symptoms. Further research should be encouraged, to know about the same in a wider dimension.

Conclusion

In the present study, we could know that the knowledge about breast self-examination is low among the general population. The knowledge about BSE was associated with educational status, place of residence and socio-economic status of the study population. The percentage of study participants performing BSE in a correct way and regularly is very low. The main reason for decrease in practice is lack of knowledge. This can be further substantiated by the positive correlation shown between knowledge and practice of breast self-examination.

Acknowledgement

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