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Research Article

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Awareness about breast cancer among women attending obstetrics and gynaecology department in a tertiary care hospital of Jharkhand, India

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ABSTRACT

Background: Most of the patients of breast cancer seek medical advice when the disease is fairly advanced. Lack of awareness about the risk factors and symptoms of the disease is the main cause of late detection of this cancer- at a stage that they can no more be cured. The objective was to determine the awareness about breast cancer among women attending obstetrics and gynaecology department of Rajendra Institute of Medical Sciences (RIMS), Ranchi. **Methods:** It was a descriptive, cross sectional hospital based study conducted in Obstetrics and Gynaecology department of RIMS, Ranchi between January to March 2015 among women aged more than 15. A total of 162 women selected by consecutive sampling were interviewed using a pretested semi-structured questionnaire after taking informed consent. Data entry was done in MS excel and analyzed in SPSS software. Frequency distribution was done and chi square test was used to find the association between awareness of breast cancer with different sociodemographic profile.

Results: Mean age of the participants was 30.15 ± 10.54 . Out of total 162 participants, 123 (75.9%) had heard about breast cancer. 72 (58.5%) of the participants had knowledge of breast cancer from friends and neighborhood. 46.4% of the participants were aware of at least one of the symptoms of breast cancer. 66 (53.6%) of the participants thought family history was the cause for breast cancer. 17 (13.8%) of the participants were aware of breast self-examination and 4 participants had ever done it. Awareness of breast cancer was significantly associated with education, ethnicity, and residence of the participants.

Conclusion: there was low level of awareness about breast cancer in the study population. There is a need for programs for increasing awareness regarding breast cancer for correct knowledge and its early detection.

Keywords: Breast cancer, Awareness, Breast self-examination

INTRODUCTION

Breast cancer is the second most common cancer overall and is the most common cancer in women worldwide, both in the developed and developing countries. There are about 1.38 million new cases and 458,000 deaths from breast cancer each year. ¹

The incidence of breast cancer in India is on rising trend. Over 100,000 new breast cancer patients are estimated to be diagnosed annually in India. According to recent reports, India has 17 percent of the world's population suffering from breast cancer. More recent data from Globocan showed that for India for the year 2012; 144,937 women were newly detected with breast cancer

and out of those 70,218 women died of breast cancer. So roughly for every 2 women newly diagnosed with breast cancer, one patient is dying compared to US every 5-6th women diagnosed with breast cancer; only one of those dying. Breast cancer is not only a disease of the rich but low and middle-income countries are also affected. In fact, more than half (58%) of women who die from breast cancer live in poor countries, where the chances of survival can be as low as 20%. With weak health systems and limited access to early diagnosis and treatment, women in these countries are likely to be diagnosed only at a late stage of breast cancer and in many settings; even access to supportive and palliative care is lacking.⁴

Currently there is not sufficient knowledge on the causes of breast cancer; therefore, early detection of the disease remains the cornerstone of breast cancer control. When breast cancer is detected early, and if adequate diagnosis and treatment are available, there is a good chance that breast cancer can be cured.⁵

Breast cancer is still considered social stigma in India. There are numerous myths and ignorance in the Indian society which results in unrealistic fear of the disease.⁶ Most of the patients seeks medical advice when the disease is fairly advanced. Over 70% of the cases report for diagnostic and treatment services in advanced stages of the disease, resulting in poor survival and high mortality rates. Early Breast Cancer constitutes only 30% of the breast cancer cases seen at different cancer centers in India whereas it constitutes 60-70% of cases in the developed world.⁸ In India the incidence/mortality ratio is 0.48 compared with 0.25 in North America. Late diagnosis is a major factor for this high mortality as most patients present in advanced stage of the disease. This is attributed to lack of awareness and non-existent breast cancer screening programs in India.¹⁰

METHODS

It was a hospital based cross sectional study conducted at Obstetrics & Gynecology department of Rajendra Institute of Medical Sciences (RIMS), Ranchi from January 2015 to March 2015 among women aged more than 15. Systemic random sampling method was adopted to draw the sample. Every 5th patient in the Obs and Gynae OPD fulfilling our inclusion criteria were interviewed after taking informed consent. Pre-tested semi structured questionnaire was used for data collection. Data entered in MS Excel. Frequency distribution and descriptive analysis was done using SPSS software. Chi square test was done and p value <0.05 was considered significant association.

RESULTS

A total of 162 women participated in the study. Mean age of study population was 30.15±10.54.

Socio-demographic characteristics of the respondents

Out of total 162 participants, 120 (74.1%) were between 21-30 years of age, 66 (40.7%) were Hindu, 86 (53.1%) were non-tribal, 114 (70.4%) belonged to rural community, 64 (39.5%) had studied less than standard 10th, 108 (66.7%) were housewives and 88 (54.4%) belonged to lower socioeconomic class according to modified B. G. Prasad classification (Table 1).

Table 1: Socio-demographic profile of the patients.

Variables		Number	Percentage
	< 20	11	6.8
Age (in years)	20-30	120	74.1
	31-40	21	13.0
	>40	10	6.1
	Hindu	66	40.7
	Muslim 23		14.2
Religion	Christian	19	11.7
	Sarn (a local religion)	54	33.4
Ethnicity	Tribal	76	46.9
Ethnicity	Non-tribal	86	53.1
Residence	Rural	114	70.4
Residence	Urban	48	29.6
	Illiterate	50	30.9
Education	< 10 th standard	64	39.5
	≥10 th standard	48	29.6
	Housewife	108	66.7
0	Job (govt/ private)	5	3.1
Occupa-tion	Laborer	14	8.6
	Farmer	31	19.1
	Others	4	2.5
	Class I	7	4.3
Socioecono	Class II	6	3.7
mic class	Class III	9	5.6
inc ciass	Class IV	52	32.0
	Class V	88	54.4

Awareness of breast cancer, its preventive measures and treatment

Out of total 162 participants, only 123 (75.9%) had heard about breast cancer. Awareness about breast cancer was more among participants with higher age group i.e. more than 40 years (90%), Muslims (82.5%), having educational status 10th standard and above (89.6%), nontribal (86%), urban dwellers (91.7%) and participants belonging to class I socioeconomic status (85.7%) (Table 2). There was statistically significant relationship between awareness of breast cancer and educational status, ethnicity and residence of the participants. We couldn't find any significant relationship between awareness and age, religion and socioeconomic status of the respondents.

Table 2: Awareness of breast cancer in different socio-demographic profile.

	Variables		Aware	Non aware	Total	Chi square
	v ar lables		No.(%)	No.(%)	No.(%)	and p value
1.	Age (in years)	<20	7(53.6%)	4(38.4%)	11(100%)	
		20-30	91(75.8%)	29(24.2%)	120(100%)	$\chi^2 = 1.99$,
		31-40	16(76.2%)	5(23.8%)	21(100%)	$\chi = 1.99$, p value >0.05
		>40	9(90.0%)	1(10.0%)	10(100%)	p value >0.03
		Total	123(75.9%)	39(24.1%)	162(100%)	
2.	Religion	Hindu	54(81.8%)	12(18.2%)	66(100%)	
		Muslim	19(82.5%)	4(17.4%)	23(100%)	.2 4.42
		Christian	12(63.2%)	7(36.8%)	19(100%)	$\chi^2 = 4.42$, p value >0.05
		Sarna (a local religion)	38(70.4%)	16(29.6%)	54(100%)	p value >0.03
		Total	123(75.9%)	39(24.1%)	162(100%)	
3.	Ethnicity	Tribal	49(64.5%)	27(35.5%)	76(100%)	$\chi^2 = 10.27$,
		Non-tribal	74(86.0%)	12(14.0%)	86(100%)	p value
		Total	123(75.9%)	39(24.1%)	162(100%)	< 0.001
4.	Residence	Rural	79(69.3%)	35(30.7%)	114(100%)	$\chi^2 = 9.24$,
		Urban	44(91.7%)	4(8.3%)	49(100%)	$\chi = 9.24$, p value < 0.05
		Total	123(75.9%)	39(24.1%)	162(100%)	p value <0.03
5.	Education	Illiterate	28(56%)	22(44%)	50(100%)	.2 16.75
		<10 th standard	52(81.2%)	12(18.8%)	64(100%)	$\chi^2 = 16.75,$ p value
		≥10 th standard	43(89.6%)	5(10.4%)	48(100%)	— value — <0.001
		Total	123(75.9%)	39(24.1%)	162(100%)	\(\tau_{0.001}\)
6.	Occupation	Housewife	78(72.2%)	30(27.8%)	108(100%)	$\chi^2 = 2.43$,
		Others	45(83.3%)	9(16.7%)	54(100%)	$\chi = 2.43$, p value >0.05
		Total	123(75.9%)	39(24.1%)	162(100%)	p value >0.03
7.	Socioeconomic class	Class I&II	11(84.6%)	2(15.4%)	13(100%)	
		Class III&IV	47(77%)	14(23%)	61(100%)	$\chi^2 = 2.57$,
		Class V	65(73.8%)	23(26.2%)	88(100%)	p value >0.05
		Total	123(75.9%)	39(24.1%)	162(100%)	

Table 3: Awareness about breast cancer among participant.

Sr. No.	Variables		No.	%
1.	Heard about breast cancer (n=162)	Yes	123	75.9
		No.	31	19.1
		Mass media	64	52
2.	Source of information(n=123,	Family member	23	18.7
۷.	multiple response type)	Friend/neighbor	72	58.5
		others	37	30.1
	A	Lump	56	45.5
2	Awareness about symptoms(n=123, multiple response type)	Pain	21	17
3.		Discharge	35	28.4
		Don't know	66	53.6
		OCP	12	9.8
		Family history	66	53.6
		Curse	8	6.5
	Awareness about risk factors(n=123, multiple response type)	Dietary factor	34	27.6
4.		Alcohol/smoking	30	24.4
		Contagious	15	18.5
		Late pregnancy	12	9.8
		Others	26	21.1
		Don't know	38	30.9

Table 4: Awareness for prevention and treatment of breast cancer among participants (n=123).

Sr. no.	Variables		No.	Percentage
1.	Awareness about preventive measures (n=123)	Check up by doctor	16	13
		Breast cleanliness	10	8.1
		BSE/mammography	4	3.2
		Can't be prevented	9	7.3
		Don't know	108	87.8
2.	Awareness about treatment (n=123)	Curable	32	26
		Incurable	70	57
		Don't know	21	17

Knowledge of signs and symptoms

Out of total 123 participants who had heard about breast cancer, 66 (53.6%) didn't know any of the symptoms of breast cancer. 56 (45.5%) participants described lump in breast, 35 (28.4%) as discharge and 21 (17%) as pain in breast as the symptoms of breast cancer (Table 3).

Knowledge about risk factors

Out of 123 participants 38 (30.9%) didn't know any of the risk factors for breast cancer. Most of the women i.e. 66 (53.6%) describes family history as main risk factors for it (Table 3). 27.6% and 24.4% of the women told dietary factors and consuming alcohol or tobacco as risk factors for it respectively. 9.8% of the participants told taking oral contraceptive pills and late pregnancy as risk factor. 6.5% of the women told curse by the God as risk factor. Interestingly 21.1 % of the respondents were in the opinion that talking about cancer, touching breast too often, a bruise or incision on breast as risk factor for it.

Source of information

Out of total 123 participants 72 (58.5%) had heard about breast cancer from friends and neighbour, 64 (52%) from mass media and 23 (18.7%) from family members (Table 3).

Knowledge about prevention and treatment

Out of total 123 respondents, 70 (57%) of the women had the opinion that breast cancer was not curable, 32 (26%) thought it curable and 21 (17%) didn't know about treatment (Table 4). 108 (87.8%) women couldn't describe any of the preventive measures. 16 (13%) women thought examination of breast by doctor can prevent it. 8.1% of the women thought cleanliness of the breast could prevent breast cancer. 7.3% of the respondents told breast cancer couldn't be prevented by any means. Only 4 (3.25%) women thought breast self-examination (BSE) or mammography as preventive measure for breast cancer (Table 4).

Knowledge of BSE /mammography

Out of 123 participants only 17 (13.8%) had heard about BSE/Mammography (Table 5). Out of 17 women who had heard about BSE/Mammography only 4 women had ever done BSE but none of them did it on regular basis. Lack of knowledge about BSE was the main reason among 70.5% of the women for not doing BSE (Table 5). 58.8% were not doing due to embarrassment, 35.3% due to fear, and 23.5% due to forgetfulness or being busy.

Table 5: Awareness about breast self-examination among participants (n=123).

Sr. 1	no. Variable	es	No.	Percentage
1	Heard	Yes	17	13.8
1.	about BSE	No	106	86.2
2.	Practice of	Yes	4	3.3
2. B	BSE ever	No	119	96.7
	Cause of	Fear	6	35.3
		Embarrassment	10	58.8
BSE	practice of	Lack of knowledge	12	70.6
	(n=17)	Too busy/forget fullness	4	23.5

DISCUSSION

Breast cancer is one of the preventable cancers if diagnosed in early stage. Survival after diagnosis and treatment is directly related to stage at diagnosis. The earlier the breast cancer is diagnosed the better the survival rates. There is thus considerable potential for reducing mortality from breast cancer in populations by detecting breast cancer early. About 70-80% of cancer detected on screening may have a good prognosis. Women affected in India usually turn up at the later stages when the mortality rate is higher. Several reasons have been found as to why women in India turn up late to the doctor, of which the major ones are lack of awareness, shyness on part of patients and social stigma.

In the present study, awareness of breast cancer among the participants was 75.9% which was higher than the study done by Somdatta, et al.¹² In urban resettlement

colony in Delhi where awareness was only 56%. Awareness was only 53.4% in the study conducted at community level in Delhi by Dey S, et al. ¹⁸ Awareness was found to be higher (91.2%) among women in Saudi Arabia in the study done by Abolfotouh MA, et al. ¹⁴ Awareness was also higher in the study done by Motilewa OO, et al. ¹⁵ And Zavare A, et al. ¹⁶

In our study it was found that only 46.4% of the participants were aware of at least one of the symptoms of breast cancer whereas it was 51% in the case of study done by Somdatta, et al.¹² Similar results were obtained in the study done among Nigerian women.^{17,18}

In this study only 14% of the women had heard about BSE which was much lower than the study done by Abolfotouh MA, et al where BSE was known to 91.2% of the women but only 41.6 % reported ever practicing BSE and 21% performed it regularly. 14 But in our study only 4 (3.25%) women had ever done BSE but none of them did it on regular basis. In a study done in rural town in Nigeria about 58.2% of respondents had heard of BSE and 24.4% had ever performed BSE and only 5.3% of the respondents performed it regularly. This could be due to very poor knowledge about breast cancer in the present study. Lack of knowledge (70.5%) about BSE was the main reason for not doing BSE according to most of the women in our study. Similar finding was reported by other researcher also.¹⁴ BSE was practiced regularly (91.9%) by the undergraduate students of Klang valley, Malaysia.²⁰ This also seems to be due to higher educational status among students. Barrier to nonperformance of BSE was lack of knowledge of how to perform BSE (70.5%). Similar result was found in the study done in Nigerian rural town.¹⁹ In a study done among teachers in different states in India, it was found that ignorance (50%), lethargic attitude (44.8%) and lack of time (34.6%) were the main reason for not doing BSE even after giving them knowledge about it.²¹

Friends and family followed by mass media were the main source of information about breast cancer in our study. Main source of information was television in the study done by Somdatta, et al and Nde FP, et al. 12,22

In our study awareness of breast cancer was higher in higher age group, higher educational level, in non-tribal communities, in urban communities and among higher socioeconomic class. Similar findings of higher awareness among participants with higher age group and higher socioeconomic status was found in the study done in Northern Iran and Delhi. Other researchers have also found out the similar results. The study also showed that awareness was higher in participants of urban area than that of rural area as found in a study in Malaysia also.

CONCLUSION

There was very low level of awareness among the respondents regarding breast cancer, its risk factors, treatment as well as its preventive measures. Breast self-examination which is the most cost effective method for early detection of breast cancer was known only too few of the participants and none of them were practice it on regular basis. Therefore it is important to create awareness and educate the community and to remove the misconceptions associated with ignorance through community based educational/awareness campaign.

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