

Hospital Based Descriptive Cross-Sectional Survey Assessing Knowledge, Attitude, and Practice towards Breast Cancer and Breast Cancer Screening among Women

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Abstract

Aim: The aim of the present study was to assess the knowledge, attitudes, and practices surrounding breast cancer awareness and screening among women in Gaya region.

Methods: This was a facility-based, descriptive, cross-sectional study, conducted in the Department of Community Medicine. Detainees from all age groups and backgrounds were eligible to be included in this study. Out of 520 selected detainees, 500 participants responded to the questionnaire with a response rate of 96.15%

Results: The mean age was (34, standard deviation (SD): 12.4) years, and the ages of more than half of them 290 (58%) are from 18-30 years. 200 (40%) of them were illiterate and 180 (36%) had primary education. Regarding their marital status, the majority of them 300 (60%) were married. Additionally, 375 (75%) were housewives. About the participants' knowledge about breast cancer, the majority of them 300 (60%) agreed that breast cancer is the most common cancer among females, and 300 (60%) said that breast cancer is a curable disease. Moreover, nipple discharge was the most commonly chosen symptom by the participants 220 (44%), and smoking was the most commonly selected risk factor for breast cancer 260 (52%). Furthermore, 260 (52%) of the participants did not know the methods of breast cancer diagnosis. The overall score of the participants' revealed that more than half of them had poor knowledge about breast cancer, poor knowledge about breast cancer was significantly associated with low educational status, however it was not associated with the occupation of the participants and wasn't associated with neither their marital status, nor their age. In this study, it was also observed that 72% of the study participants had positive attitude toward breast cancer screening. Despite having good knowledge and attitude toward breast cancer screening, the practice levels were still seen to be very low among study participants.

Conclusion: The majority of the respondents think about breast self-examination as an important issue but they have poor practice. Thus, we recommend more health campaigns and educational sessions in such facilities.

Keywords: knowledge, attitude, practices, breast cancer

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Introduction

The global burden of cancer is increasing largely because of the aging and growth of the world population with an increase in practice of cancer-causing behaviors, particularly smoking, in economically developing countries. Breast cancer is the most commonly diagnosed cancer and the prime cause of death due to cancer among females, accounting for 23% of the total cancer cases and 14% of deaths due to cancer. [1] In many low-income and middle-income countries, the incidence of breast cancer is now rising rapidly due to alterations in reproductive factors, lifestyle, and increased life expectancy. [2]

Breast cancer has crossed cervical cancer and has become the most commonly occurring cancer among Indian women residing in urban areas. [3] Indian women mostly present with breast cancer when it has already reached at advanced stage which reduces the rate of survival. Early-stage diagnosis has a better chance of survival and good prognosis. [4] The whole scenario of the advanced stage presentation moves around the two major factors: nonexistent of breast cancer screening program and nonparticipation of women if any such program does exist. [5] Undoubtedly, breast cancer will become an epidemic in India in another 10 years, if the current

status of detection continues. As there is no exact etiological agent for breast cancer, early diagnosis and treatment is of paramount importance in improving the morbidity and mortality status. [6] Early detection plays a pivotal role in the prevention of breast cancer. The 5-year survival rate has reached approximately 85% with early detection, whereas later detection has decreased the survival rate to 56%. [7]

There is an urgent need for proper awareness programs in developing countries as their awareness and health-seeking practices have been shown to be very low. [8] One of the biggest barriers to early detection and screening of breast cancer is lack of awareness. [9] There is an urgent need to develop community-based, well-organized screening programs for breast cancer instead of coincidental screening of women. [10] Breast self-examination (BSE), clinical breast examination (CBE), and mammography are some of the methods recommended for early detection and screening of breast cancer. [11] Studies have shown that breast cancer screening programs like mammography, breast self-examination (BSE), and breast clinical examination (BCE) had an important role in early detection, increasing the survival rate, decreasing fatality, and preventing recurrence among breast cancer patients. [13-15] BSE is recommended by the American cancer society, it has been reported that women who practiced BSE regularly were more likely to present with early stages of the disease, this is due to the fact that regular BSE familiarizes the female with feel and appearance of the breast, and thus she will be more able to detect any change as early as possible. [16]

The aim of the present study was to assess the knowledge, attitudes, and practices surrounding breast cancer awareness and screening among women in Gaya region.

Materials and Methods

This was a facility-based, descriptive, cross-sectional study, conducted in the Department of

Community Medicine, Anugrah Narayan Magadh Medical College, Gaya, Bihar, India for one year. Detainees from all age groups and backgrounds were eligible to be included in this study.

Data Collection Tools

520 participants were randomly selected from the total population of the facility which was 960 persons, using a formula with prevalence of 0.5 and a confidence level of 95, by randomly picking 520 numbers out of 960 numbers list of the total population. Out of 520 selected detainees, 500 participants responded to the questionnaire with a response rate of 96.15%

The questionnaire is divided into 4 sections; socio-demographic section, knowledge section, attitude section, and breast self-examination section. Nine items were used to assess the knowledge by asking about symptoms, signs, protective factors, diagnosis, risk factors and curability, and three items were used for the attitude section. In breast self-examination section two items were used to assess the knowledge about breast self-examination by asking about the reasons, place, steps of self-examination, two items were used for the attitude, and three items for the practice.

Copies were handed in person to participants. Codes were used instead of names to ensure confidentiality. The Scoring for knowledge, attitude and practice for breast cancer and self-examination items was performed by a consultant oncologist.

Data Analysis

Statistical Package for Social Science 24.0 (SPSS) software was used for data entry and analysis. Categorical variables were presented as frequencies, and continuous Variables as means and standard deviations. Additionally, Chi-square test was used to test the association between categorical variables. P value of less than 0.05 was considered statistically significant.

Results

Table 1: Demographic characteristics of the study participants

	Frequency	Percentage
Age		
Mean 34		
Minimum 14		
Maximum 78		
Age groups		
18-30	290	58
31-40	130	26
41-50	60	12
More than 50	20	4
Educational level		
Illiterate	200	40
Primary	190	38
Secondary	50	10

University	50	10
Post-graduate	10	2
Occupation		
House wife	375	75
Employee	125	25
Marital status		
Single	100	20
Married	300	60
Divorced	60	12
Widowed	40	8

The mean age was (34, standard deviation (SD): 12.4) years, and the ages of more than half of them 290 (58%) are from 18-30 years. 200 (40%) of them were illiterate and 180 (36%) had primary education. Regarding their marital status, the majority of them 300 (60%) were married. Additionally, 375 (75%) were housewives.

Table 2: Participants knowledge about breast cancer

Questions	Frequency	Percentage
Breast cancer is the most common cancer among females?		
Yes	300	60
No	50	10
I don't know	150	30
Breast cancer is a curable disease?		
Yes	300	60
No	75	15
I don't know	125	25
Early diagnosis of breast cancer increases the chances of treatment?		
Yes	390	78
No	25	5
I don't know	85	17
Unequal breasts size after puberty is normal?		
Yes	320	64
No	130	26
I don't know	50	10
In most of the cases, breast cancer appears as non-painful lumps in the breast?		
Yes	300	60
No	50	10
I don't know	150	30
Normal breast feeding decreases the probability of acquiring breast cancer?		
Yes	240	48
No	100	20
I don't know	160	32
What are the symptoms of breast cancer?		
Axillary lymph nodes enlargement	200	40
Breast redness or change in color	200	40
Nipple discharge	220	44
Sever Weight loss	124	25
I don't know	180	36
Breast cancer can be diagnosed using:		
Tissue biopsy	125	25
Ultra sound	130	26
Mammography	75	15
I do not know	260	52
Risk factors of breast cancer include:		
Smoking	260	52
Alcohol	160	32
Aging	140	28
Late menopause	90	18
Family history of BC	125	25
Obesity	100	20
Long term use of contraceptive pills	125	25
I don't know	175	35

About the participants' knowledge about breast cancer, the majority of them 300 (60%) agreed that

breast cancer is the most common cancer among females, and 300 (60%) said that breast cancer is a

curable disease. Moreover, nipple discharge was the most commonly chosen symptom by the participants 220 (44%), and smoking was the most commonly selected risk factor for breast cancer 260 (52%). Furthermore, 260 (52%) of the participants did not know the methods of breast cancer diagnosis. The overall score of the participants' revealed that more

than half of them had poor knowledge about breast cancer, poor knowledge about breast cancer was significantly associated with low educational status, however it was not associated with the occupation of the participants and wasn't associated with neither their marital status, nor their age.

Table 3: Depicts attitude toward breast cancer and practice of self-breast examination among women

Parameters	N%
Attitude towards screening	360 (72)
Practice of BSE	140 (28)
Practice of CBE	80 (16)
Practice of Mammography	40 (8)

In this study, it was also observed that 72% of the study participants had positive attitude toward breast cancer screening. Despite having good knowledge and attitude toward breast cancer screening, the practice levels were still seen to be very low among study participants.

Discussion

Breast cancer is the most prevalent cancer among females globally, encompassing nearly a quarter of diagnosed cases among females, since 1.15 million cases are diagnosed annually around the world. [17-19] Breast cancer is common in both developed and developing countries. Nevertheless, its rates are three times higher in developing countries. [20] Breast cancer is a leading cause of mortality among females in Africa. [21] Evidence suggests that practicing BSE depends on different factors including females' knowledge, attitude, socio-demographic and sociocultural factors. [22] Other reasons for low rates of practice have been reported including lack of time, forgetfulness, and low level of education. [23]

The mean age was (34, standard deviation (SD): 12.4) years, and the ages of more than half of them 290 (58%) are from 18-30 years. Although all these ages are at risk for breast cancer [10], but the variation of age might affect the knowledge, attitude and practice of these women toward the disease. 200 (40%) of them were illiterate and 180 (36%) had primary education. Regarding their marital status, the majority of them 300 (60%) was married. Additionally, 375 (75%) were housewives. About the participants' knowledge about breast cancer, the majority of them 300 (60%) agreed that breast cancer is the most common cancer among females, and 300 (60%) said that breast cancer is a curable disease. Moreover, nipple discharge was the most commonly chosen symptom by the participants 220 (44%), and smoking was the most commonly selected risk factor for breast cancer 260 (52%) however in another study it was the second most commonly chosen after alcohol consumption. [25] Furthermore, the overall participants' knowledge

about breast cancer in this study was poor, and it was associated with low education status. This association was also suggested in other studies. [25,26]

Furthermore, 260 (52%) of the participants did not know the methods of breast cancer diagnosis. The overall score of the participants' revealed that more than half of them had poor knowledge about breast cancer, poor knowledge about breast cancer was significantly associated with low educational status, however it was not associated with the occupation of the participants and wasn't associated with neither their marital status, nor their age. In this study, it was also observed that 72% of the study participants had positive attitude toward breast cancer screening. Despite having good knowledge and attitude toward breast cancer screening, the practice levels were still seen to be very low among study participants. The association between the level of education and level of knowledge regarding BSE was positively concluded in our findings, higher level of knowledge about the disease was associated with higher level of education, similar observation was noticed in other studies. [24,27,28]

In a study done on Kashmiri females [29] in which only 5.6% and 4% had practiced BSE and CBE, respectively. Furthermore, in a study done on Indian teachers, it was seen that only 36% had heard about BSE and this dismal awareness level was reflected in practice as none had ever practiced BSE, CBE, and mammogram. [30] Mammography is a very useful but expensive technique and for this reason difficult to adopt in a country like India as a routine public health measure. [31] Breast cancer mortality is common in India because women present it in very advanced stages which could be majorly reduced by early detection and screening. This review surely indicates lack of breast cancer literacy among women in India. Lack of awareness is one of the barriers which needs to be removed for proper detection and prevention of breast cancer. Social stigma attached to breast cancer also needs to be cleared out, and women should be encourages for

self-examination of their breasts which could be the first step in reducing the incidence of breast cancer.

Conclusion

The majority of the respondents think about breast self-examination as an important issue but they have poor practice. Thus, we recommend more health campaigns and educational sessions in such facilities. Additionally, educational broadcasts and mini-videos illustrating the steps of breast-self-examination ought to be delivered via these imprisonments' radios and televisions. Furthermore, more research projects are encouraged to address this issue in other amenities and geographical locations throughout Sudan, also a comprehensive breast cancer screening program is also recommended.

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