

A Cross-Sectional Study to Assess the Knowledge, Attitude and Practice on Breast Self-Examination among Rural Women in Odisha

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ABSTRACT:

Breast cancer is the most common cancer among women worldwide, and it can be detected at an early stage through breast self-examination which increases the chance of survival. This study aimed to assess knowledge of breast self-examination (BSE) among females in a rural area of Nayagarh district. The objectives of the study were to assess awareness about breast cancer, identify knowledge about breast self-examination among rural women and its association with the selected demographic variable. The study period was 3 month (July to September 2015). This cross-sectional study was carried out among a total sample of 150 women in rural area of Odisha. Methods of data collection was through interview schedule by using semi structured questionnaire on their sociodemographic characteristics, awareness on breast cancer, and knowledge of BSE. The mean age of the study group was 33.6 ± 9.3 years. Majority (90.6%) belong to the reproductive age group. 71% were literates. Majority (55%) of women were housewives and 21% of women were employed in elementary occupations. Most of the women 351 (78%) were aware of breast cancer. Only 26% of the women were aware of BSE. The mean scores in attitude, and practice fields were 26.68 ± 9.8 and 12.52 ± 4.09 respectively. Spearman's rank correlation coefficient showed that knowledge and attitude were correlated, attitude and practice were not correlated; and knowledge and practice were also not correlated. Conclusion: educational programs to create awareness about breast cancer and its occurrence, risk factors, screening including BSE, symptoms, need for early help seeking, diagnosis and treatment modalities are the need of the hour. Age of women showed significant

negative correlation with knowledge level. Knowledge about breast cancer and BSE decreased with increasing age. The level of knowledge increased with increasing level of education, which was statistically significant.

KEYWORDS: Knowledge, Attitude, Practice, Breast Self Examination, Women.

INTRODUCTION

In recent decades, the incidence of various communicable diseases has declined, and the world is now in the era of non-communicable diseases (NCDs)[1]. Breast cancer is the second most common cancer worldwide and the leading cause of cancer in women in both developed and developing countries. The total number of new cases is estimated to be 25% of all cancers worldwide [2]. More than two-thirds of patients are already in an advanced and incurable stage at the time of diagnosis. The World Health Organization called early detection of breast cancer "the cornerstone of breast cancer control" [3].

Worldwide, breast cancer is the most common cancer in women. By 2030, more than 2 million women are expected to develop breast cancer worldwide, with an increasing proportion of women in developing countries [4]. Among Indian women, breast cancer is the second most common cancer after cervical cancer and is already the most common cancer in major cities. Approximately 100,000 new cases are reported annually in India, and one in 26 women are expected to be diagnosed with breast cancer during their lifetime [5]. The incidence of breast cancer is also increasing in developing countries, due to increasing urbanization, adoption of Western lifestyles, and increasing life expectancy [6].

Several factors are known to influence the risk of developing breast cancer. Age, family history, and reproductive factors are the strongest risk factors. Lifestyle and hormonal risk factors have also been mentioned [7]. Knowledge of the risk factors for breast cancer in women and the perception of their personal risk are the most important factors in motivating women to prevent, detect early, and treat the disease [8].

Every year millions of cancer-related deaths could be prevented if patients received timely early detection through regular screening and treatment. [9]. A study conducted in India found that, according to oncologists, late diagnosis of breast cancer is the most important cause of lower survival in women [10]. Early detection plays a crucial role in the prevention of breast cancer. The 5-year survival rate is about 85% with early detection, while it has dropped to 56% with later detection. [11] Breast cancer differs from other cancers in that it occurs in a conspicuous organ and can be detected and treated at an early stage. [12] Most of the breast tumors diagnosed at an early stage were self-detected.

Recommended screening methods to reduce breast cancer morbidity and mortality include breast self-examination (BSE), clinical breast examination (CBE), and mammography [13] However, the latter two procedures require a physician visit and the use of specialized equipment. BSE is a simple, quick, convenient, private, free, and safe method that requires no equipments [14].

Evidence shows that women who seek treatment at an early stage have a better chance of survival. To enable early detection, women should be informed about the disease, its symptoms, and simple prevention strategies such as breast self-examination. Though it is an

ancient technique, BSE is not commonly or incorrectly practiced for many reasons. Previous studies have shown that the main obstacles to the poor application of breast self examination are fear, anxiety, lack of time, forgetfulness, lack of education, ignorance etc. Therefore, it is important to determine the level of knowledge about BSE and the attitudes and practices of women in our community to identify their acceptance, beliefs, and extent of current practice. [15].

In this background, this study was conducted with the aim of assessing the knowledge, attitude and practice of BSE among rural women of Odisha and to establish a correlation between knowledge, attitude and practice.

MATERIALS AND METHODS

A descriptive cross-sectional study was conducted among 450 rural women of reproductive age group (18-49) in Odisha. The study was conducted from September 2019 to February 2020. The data was collected by the investigator herself by using pretested, semi structured interview schedule to obtain information about the knowledge of breast cancer and breast self examination, attitude and practice on BSE after obtaining written permission of concern authority of study setting and getting the informed consent from the study participants. Anonymity and confidentiality of responses were assured to women participating in the study. Women who had breast pain and had already been diagnosed with breast cancer were excluded from the study. The sample size was calculated based on a previous study conducted among rural women in Kerala.

A pretested, semi structured questionnaire was used to assess the knowledge on breast cancer and BSE, attitude, and practice of BSE among these women. The questionnaire consisted of four sections. Section I contains demographic variables, section II contains 26 multiple-choice questions on knowledge about breast cancer and BSE, section III consists of 11 questions on attitude toward BSE, and section IV consists of 5 questions on practice of BSE. . A 5-point Likert scale (Strongly Agree /Agrees/ Neutral /Not Agree /Strongly Disagree) was used to assess attitudes. A similar ordinal scale (Never /Seldom/ Neutral / Frequent /Always) was used to query practice. Each correct answer to questions about breast cancer knowledge and BSE was scored as 1 and each incorrect answer as 0. The total score was divided into four categories: poor (0-6), moderate (7-13), good (14-19), excellent (20-26). For a positive attitude item, "5", "4", "3", "2", and "1" were used for "disagree at all", "agree", "neutral", "disagree", and "disagree at all", respectively. For practice, item scores of "1," "2," "3," "4," and "5" were used for "never," "rarely," "neutral," "frequently," and "always," respectively. For all negative items, the scores were reversed and the total score was calculated.

Frequency, percentage, mean, and standard deviation were calculated for each of the parameters. The values obtained for knowledge, attitude, and practice were categorized for further analysis. Data were analyzed using percentages and Spearman's rank correlation coefficient (rho) using IBM Statistical Package for Social Sciences (SPSS) version 21.

After data collection, participants were educated about the causes, prevention of breast cancer and proper method of BSE through interactive sessions and handouts.

RESULT:

Mean age of the study group was 33.6 ± 9.3 years. Majority (90.6%) belonged to reproductive age group. 71% of the study participants were literates. Majority (55%) of the women were housewives and 21% of the women were employed in elementary occupations. Most 385 (85.5%) women are married. Most of the women 351 (78%) among the total 450 have heard about breast cancer, and the rest 99 (22%) did not know what breast cancer is. Fifty-six percent of the women said that most common age of the occurrence of breast cancer was between 35-50 years. More than one-third of the women (44%) knew that early menarche is a risk factor for developing breast cancer. 36.7% of women said that breast cancer is not related to age of menarche and another 19.3% did not have any idea about this biological relation. 44% of women replied that late menopause is related to the high risk of occurrence of breast cancer. 48.6% of the respondents agreed that prolonged intake of oral contraceptive pills increases the risk of developing breast cancer. 36.7% of the respondents said that women who have their first pregnancy beyond 30 years of age would have increased risk of developing breast cancer and 32% of the study participants did not have any idea regarding this relationship. Positive family history of breast cancer was present in 6.3% of the families.

When asking about sign and symptoms of breast cancer 24.7% of women responds that they did not know about this whereas majority 50% of the respondents told that lump in the breast. Percentage of women responding to nipple discharge, pain, nipple retraction were 37.3%, 32% and 3.3% respectively shown in (Table 1) 38% of respondent agreed that clinical examination is the diagnostic procedure for diagnosing breast cancer whereas only 27% of women agreed that breast self examination is the diagnostic procedure and 21% of women told that they have no idea about the diagnosing procedure for breast cancer.

Only 14% of the women were aware that BSE has to be done once a month. Major proportion of the participants (67.3%) had no idea about the time interval for consecutive BSEs and 15.3% said that BSE has to be done once in a year. only 11.1% knew that it has to be done during postmenstrual phase of each cycle. Half of the participants did not know about the changes to be observed in the breast during BSE.

When the respondents were asked about at what age BSE should be started only 14% of respondents said that from 20 year of age however majority of them did not have any idea regarding this. Only 16.7 study participants had known about the benefits of BSE. When asking about the posture for BSE, 52% had no idea about it; standing, lying down, and sitting were replied by 27%, 11%, 4% of the participants. Highest (66.7%) of women had no idea about the procedure of BSE. (Table –2)

Only 11.5% of the participants had known that Breast Self Examination is performed by using pads of fingers. Health-care workers were the source of information for BSE in 19.3% of the participants. Only 11.3% of study participants said that BSE should Be done at home. Overall 62% of women had poor knowledge, 29.3% had fair knowledge whereas only 8.6% had good knowledge regarding Breast Self-Examination.

ATTITUDE:

The mean score of attitude toward BSE was 26.52 ± 7.35 with a minimum score of 11 and a maximum score of 52. The scores were divided into three categories i.e score 36-55 for good attitude, 26-35 for adequate attitude, and 11-25 for poor attitude. In our study, almost 53.3% of the respondents had poor attitude (< 25) towards BSE. There are a variety of reasons for this from which main reasons are societal stigma and social norms that make it difficult for women to talk/learn about it, not to mention popular culture that allows for the sexualization of breasts. In most families, there is an unspoken and undefined communication gap between spouses and parents. Fear, lack of knowledge and an indifferent attitude also contribute.

PRACTICE:

The mean score in practice of Breast Self-Examination was 12.52 ± 4.09 with a minimum score of 7 and a maximum score of 24. Scores are divided into two categories such as 15-25 was considered as good practice whereas score <15 was considered as poor practice.

Though 351 respondents said that they knew about BSE but had poor attitudes. Again, the four respondents who scored highest on knowledge had very low attitude towards BSE, indicating that knowledge alone is not enough to have a positive attitude. So many factors like discomfort, unfamiliarity, and unpleasant past experiences may also have contributed to a negative influence on attitudes towards BSE and practice, as indicated by the fact that 93 respondents had knowledge but poor in practice of BSE. Lack of proper information about BSE, poor attitude due to the above reasons, busy schedule, and lack of foresight could be the causes of poor practice scores for 450 women.

Spearman's rank correlation coefficient showed that correlation between knowledge and attitude was 0.254 ($P = 0.102$) which indicated that knowledge and attitude are correlated. Similarly correlation between attitude and practice -0.087 ($P = 0.102$), which showed that attitude and practice are not correlated. Correlation between knowledge and practice was -0.097 ($P = 0.102$), therefore knowledge and practice are not correlated.

Table – 1: Awareness about breast cancer among study participants (n=450)

Variable	Frequency	Percentage(%)
Awareness about breast cancer		
Yes	351	78
No	99	22
From where you know about breast cancer		
Radio	90	20
Television	198	44
Poster	33	7.3
Newspaper	30	6.7
No idea	99	22
Common age for occurrence of breast cancer		
<19	66	14.7
19-35	99	22

35-50	252	56
>50	33	7.3
Risk factors for breast cancer		
Early menarche	198	44
Late menopause	198	44
Intake of OCP	219	48.7
Late pregnancy	163	36.3
Symptoms of breast cancer		
Lump in the breast	225	50
Discharge from nipple	180	40
Pain	144	32
Nipple retraction	15	3.3
No idea	111	24.7

DISCUSSION:

BSE is an inexpensive, simple, noninvasive method for early detection of breast tumors. Thus, knowledge about the procedure & consistent practice could protect women from severe morbidity & mortality due to breast cancer. This study assessed the knowledge, attitude and practice on BSE among rural women in Odisha.

The mean age of the participants in our study (33.6 ± 9.3) is much higher than that of the study conducted among dental students (19.6 ± 1.38). The reason for this could be that older women have already had pregnancies, breastfed their children and may therefore be more familiar with issues related to BSE.

In the present study 30.9 % studied till secondary school and no formal education was seen in 28.3%. Graduate and above was seen among 11.2% of study participants. In another study majority of study participants were illiterate accounting for 37.5% which is contradictory to our study.

Majority of the study participants in the present study were home makers (54.6%), 6.6% were skilled workers. In another study by Ranjan Kumar Prusty et al, 47% were home makers which is almost similar to present study. [16]

The study revealed that the study population (74%) was aware of cancer breast . However, the knowledge regarding risk factors and signs was poor. Risk factors are important to know as they can control their risk factors by assessing their risk category, which can help in early detection of the disease which tremendously increases their chance of survival. About 49% of women heard about breast cancer in a study done by Ranjan Kumar Prusty et al which is less than present study [17].

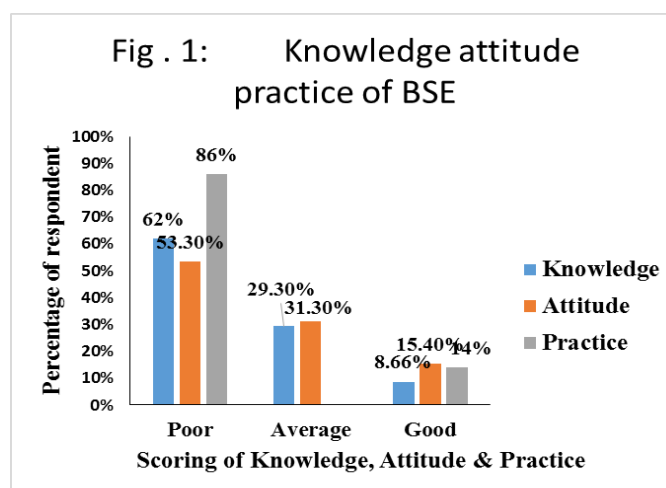
Table – 2: Awareness about BSE among study participants (n=450)

Variable	Frequency	Percentage(%)
Awareness about Breast Self examination		
Yes	150	33.3
No	300	66.7

Frequency of BSE		
Monthly	63	14
Weekly	68	15
Yearly	15	3.3
No idea	304	66.3
Appropriate time for BSE		
5th day of menstrual cycle	51	11.3
Regular day of each month	69	15.3
Anytime	24	5.3
Don't know	306	68.1
At what age BSE should be Started		
At birth	3	.7
From puberty	96	21.3
From 20-30 year	96	21.3
After Menopause	33	7.3
No idea	222	49.3

Table – 3 : Correlation between knowledge, attitude and practice of BSE (n=450)

Correlation between	Spearman's rank correlation coefficient	P	Remarks
Knowledge and attitude	0.254	<0.001	Correlated
Attitude and practice	-0.089	0.102	Not correlated
Knowledge and practice	-0.078	0.102	Not correlated



About 32% told pain in the breast is the symptom, lump in breast 50% and 37.32% told discharge from the nipple respectively. In another study 34.43% told pain in the breast is the

symptom, lump in breast 30.86% and 21.68% told discharge from the nipple respectively which is similar to our study. (Table –3)

The knowledge, attitude, and practice scores obtained in this study are higher than those previously obtained among dental students in Hyderabad, India [17]. When asked about Breast Self-Examination awareness it was observed that 62% were aware. About 85.71% of women were aware of BSE in another study which is contradictory to our study.

Only 21% of study participants who were aware among them only were practicing BSE. The frequency of doing BSE monthly was seen in 15.43%, about 67.3% don't know how to do self breast examination. In another study 47.63% do BSE once in a month.

In the present study, age of the women had a negative correlation with knowledge. This was in contrast to a study from rural Guntur where knowledge increased with increase in age.[2] Women with higher level of education had better knowledge regarding breast cancer and BSE than women with low education status. This was concordant with the reports presented by other study in Trichy [3]. Recently a study conducted by Kumarasamy et al. in a rural area of India showed that only 26% of women knew about BSE, of whom 18% had ever examined their breasts and 5% did so regularly.

CONCLUSION:

This study highlights the need for educational programs to raise awareness of breast cancer and its occurrence, risk factors, screening including BSE, symptoms, the need for early help-seeking, diagnosis, and treatment modalities.

Primary care physicians have a critical role to play in breast cancer screening. Because of their responsiveness and credibility in the community, family doctors are often the first and only point of contact for women seeking information about their health. They can provide the tools necessary to learn about and practice BSE, as well as destigmatize this screening. In this way, they can create a culture and environment that normalizes BSE and thus encourage more women to practice BSE.

Breast cancer awareness needs to be improved by addressing documented barriers. This includes engaging spouses, family, and the community to positively influence BSE practices. Women need to be motivated to self-examine their breasts and detect any changes as early as possible. All women need to come together and help each other. The way to do this is to share information about the importance and technology of

The revenues of major social networks, now measured in billions and rising steeply from year to year, come mainly from online advertising. Advertising on social networks is becoming an increasingly important means of promoting products and services. A typical social network advertising campaign contains multiple ad groups (e.g., one for each target audience), and each ad group contains multiple ads. When managing ad campaigns, decisions about which ad groups and ads should be active and for which more advertising dollars are allocated are particularly important.

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CONFLICT OF INTEREST:

There are no conflicts of interest between the authors and the information reported in this paper.

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