



AWARENESS ABOUT BREAST CANCER AND ITS SCREENING: A CROSS SECTIONAL STUDY AMONG THE FEMALE COLLEGE STUDENTS OF ASSAM

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Abstract:

Breast cancer is the most common female cancer worldwide representing nearly a quarter (23%) of all cancers in women. the trend of breast cancer is rising in younger Indian women. This paper studies the socio demographic characteristics of the young female students of Assam above 18 years of age to assess their level of awareness of Breast Cancer and assess their level of knowledge of Breast Cancer Risk Factors, Early Symptoms and Common Screening Methods. This study reveals that the study population is aware of breast cancer. However, their knowledge regarding risk factors is inadequate. Though they have some knowledge about a few risk factors, yet their awareness level is not exhaustive. As far as BSE is concerned, the young female students are unaware of its importance. The study revealed that only a meagre 35% (106 out of 300) of the female students under study were aware of BSE and out these only 14 of them (13.2%) practised BSE to some extent. Majority of the female students (86.8%) never practised BSE despite their knowledge about it, either due to insufficient knowledge about how to conduct BSE or due to lack of awareness of the importance of BSE as far as early detection and reduction of mortality due to breast cancer is concerned.

KEYWORDS: Breast Cancer, Risk factors, Breast Self- Examination (BSE)

INTRODUCTION

Breast cancer is the most common female cancer worldwide representing nearly a quarter (23%) of all cancers in women. ^[1,2] According to The American Cancer Society, breast cancer is the most common cancer in women in the United States. It is about 30% (i.e. 1 in 3) of all new female cancers. According to their estimates for US in 2023, about 297790 new cases will be diagnosed and 43,700 women will die from breast cancer.^[3] As per WHO reports, in 2020, 2.3 million women were diagnosed with breast cancer and 685000 deaths occurred globally due to breast cancer. At the end of 2020, there were 7.8 million women alive who were diagnosed with breast cancer in the past 5 years. Epidemiological studies have revealed that that the global burden of breast cancer is expected to cross almost 2 million by the year 2030.^[4]

In India, breast cancer accounts for 14% of cancers in Indian women. It is reported that with every four minutes, an Indian woman is diagnosed with breast cancer. Incidence of breast cancer is on the rise both in rural and urban India. From being fourth in the list of most common cancers in India, it has now become the first ^[5]. A 2018 report of Breast Cancer Statistics recorded 1,62,468 new

registered cases in India with 87, 090 reported deaths. As per the Globocan data 2020, in India breast cancer accounted for 13.5% (178361) of all cancer cases and 10.6% (90408) of all deaths.^[6] Moreover, the survival rate of patients with breast cancer is poor in India as compared to Western countries due to earlier age at onset, late stage of disease presentation, delayed initiation definitive management and inadequate or fragmented treatment.^[7]

RATIONALE OF THE STUDY

It is alarming that the trend of breast cancer is rising in younger Indian women. Breast cancer management for young Indian women are full of challenges. The National Cancer Registry Programme (NCRP) has predicted that nearly 2,30,000 cases of breast cancer will be reported annually by 2025. ^[8] It is to be noted that breast cancer is leading in the age group 15- 34. Though genetic factors and family history of breast cancer are known to increase the risk of its incidence, many studies have identified factors such as obesity, poor lifestyle, smoking and drinking alcohol to have significantly increased the risk of breast cancer. As such it becomes highly imperative that there arises the need for educative and awareness programmes targeting the younger members of the society to implement early practices of Breast Self-Examination.

OBJECTIVES OF THE STUDY

The objectives of this paper are:

- To study the socio demographic characteristics of the young female students
- To assess the level of awareness of Breast Cancer
- To assess the level of knowledge of Breast Cancer Risk Factors, Early Symptoms and Common Screening Methods

STUDY POPULATION AND SAMPLING TECHNIQUE

The present study has been carried out among the female college students of assam in the age group 18 years and above. The data have been collected from 300 from female college going students from different parts of Assam, categorised as Urban, Rural and Semi Urban areas. From each of these areas 100 students have been selected using Simple Random Sampling Technique. A specially structured questionnaire has been used to collect information regarding the socio demographic characteristics of the young female students, their attitude and experience regarding Breast Cancer their level of awareness of Breast Cancer and their level of knowledge of Breast Cancer Risk Factors, early symptoms and common screening methods.

RESULT & FINDINGS

Table 1 shows the socio demographic characteristics of the respondents. It has been found that 63% of the respondents were in the age group 21-22 years and only 2% of them were above the age of 25 years. Majority of the respondents were Hindus (76%) and a high proportion of 81% belonged to General Caste. Most of the respondents were pursuing UG course (63%). As far as the educational qualification of the parents is concerned, 9% of them were illiterate, around 37% are literate with only Lower Primary level of education and around 15% with 10+2 level of education. Around 30% parents were graduate, 10% of them were postgraduates and a meagre 1% had other professional/

higher level of education. The Monthly family income of around 22% was found to be less than Rs.10,000 and around 5% had more than Rs.50,000 family income per month. A high percentage of the respondents i.e., 63% had monthly family income between Rs. 10,000 and Rs. 30,000.

TABLE 1: Percentage Distribution of female college students the age group 18 years and above by selected background characteristics.

Background Characteristics	Number	Percent
I. AGE		
18 – 20	48	16
21 – 22	189	63
23 - 25	57	19
25 and above	06	02
II. RELIGION		
Hindu	228	76.0
Muslim	47	15.67
Others	25	8.33
III. SOCIAL GROUP		
General	243	81.0
Schedule Caste	21	7.0
Schedule Tribe	16	5.33
OBC and Others	20	6.67
IV. EDUCATION		
10 +2 level	50	16.67
UG level	189	63.0
PG level	58	19.33
Others	03	1.0
V. EDUCATION LEVEL OF PARENTS		
Illiterate	27	9.0
Literate	109	36.33
10+2 passed	43	14.33
Graduate	89	29.67
Postgraduate	29	9.67
Others	03	1.0
VI. MONTHLY FAMILY INCOME		
<10,000	64	21.33
10,000- 30,000	189	63.0
30,000- 50,000	33	11.0
>50,000	14	4.67
TOTAL	300	100.0

Table 2 shows that out of 300 respondents, 296 (98.7%) are aware of breast cancer and only a meagre 73 (24.3%) have knowledge about other breast related diseases. A high percentage of 86.3 respondents (259 out of 300) are aware of risk factors involved with morbidity due to breast cancer. It is noteworthy to mention that though a high percentage of 94.7 respondents have good knowledge about symptoms of breast cancer, only a very low percentage of 35.3 respondents have knowledge or are aware of Breast Self-Examination (BSE).

TABLE 2: Percentage Distribution of female college students in the age group 18 years and above w.r.t to their knowledge about breast cancer and its screening:

Background Characteristics	Number	Percent
I. AWARENESS ABOUT BREAST CANCER		
Yes	296	98.7
No	04	1.3
II. AWARENESS ABOUT OTHER BREAST DISEASES		
Yes	73	24.3
No	227	75.7
III. AWARENESS ABOUT RISK FACTORS OF BREAST CANCER		
Yes	259	86.3
No	41	13.7
IV. AWARENESS ABOUT BREAST CANCER SYMPTOMS		
Yes	284	94.7
No	16	5.3
V. AWARENESS ABOUT BREAST SELF EXAMINATION		
Yes	106	35.3
No	194	64.7
TOTAL	300	100.0

Table 3 shows the distribution of the respondents as far as their knowledge about breast cancer and the related risk factors are concerned. Out of the 259 respondents who are aware about various risk factors involved with onset of breast cancer, high proportions are aware of the risk factors viz. age (96.5%), family history (98.8%), exposure to radiation (96.1%), smoking (80.7%), alcohol consumption (70.7%) and hormonal treatment (75.7%). However, very meagre proportions are aware of risk factors like age at menarche (2.7%), age at menopause (1.2%), age at parity (6.9%), abstinence from breast feeding (10.4%), late marriage (3.9%) and obesity (8.5%). 20.5% are aware that food habits also contribute of risk of cancer and 22% are aware that high consumption of oral contraceptive pills are also associated with increased risk of breast cancer.

TABLE 3: Percentage Distribution of female college students in the age group 18 years and above w.r.t to their knowledge about breast cancer and the related risk factors:

RISK FACTORS	Number (Total 259)	Percent
1. Age	250	96.5
2. Food Habit	53	20.5
3. Smoking	209	80.7
4. Alcohol Consumption	183	70.7
5. Obesity	22	8.5
6. Age at Menarche	07	2.7
7. Age at Menopause	03	1.2
8. Age at Parity	18	6.9
9. Abstinance from Breastfeeding	27	10.4
10. Late Marriage	10	3.9
11. Family History	256	98.8
12. Exposure to Radiation	249	96.1
13. Hormonal Treatment	196	75.7
14. Oral Contraceptive Pill	57	22

Table 4 shows the distribution of the respondents as far as their knowledge about breast cancer and the related symptoms are concerned. Out of the 284 respondents who are aware about various symptoms associated with onset of breast cancer, high proportions are aware of the risk factors viz. presence of lump in/around breast (97.2%), change in breast size (94.7%), presence of breast ulcers/blisters (76.4%), pain in breast (63%), abnormal discharge from nipple (41.9%) and weight loss (36.3%). However, very meagre proportions are aware that symptoms like swelling in arm pit (16.6%), irritation in the nipple (20.1%), change in breast colour (8.5%), and fever (10.2%) are also alarm bells as far as onset of breast cancer is concerned.

TABLE 4: Percentage Distribution of female college students in the age group 18 years and above w.r.t to their knowledge about breast cancer and the related Symptoms:

SYMPTOMS	Number (Total 284)	Percent
1. Lump in/around the Breast	276	97.2
2. Swelling in the Armpit	47	16.6
3. Abnormal Discharge from Nipple	119	41.9
4. Irritation in the Nipple	57	20.1
5. Change in Breast Size/Form	269	94.7
6. Change in Breast Colour	24	8.5
7. Pain in Breast	179	63.0
8. Breast Ulcer/Blister	217	76.4
9. Weight Loss	103	36.3
10. Fever	29	10.2

Table 5 shows the distribution of the respondents as far as their practice of Breast Self- Examination (BSE) is concerned. Out of 106 respondents who claimed to have some knowledge about practice of Breast Self- Examination (BSE), only 2 of the respondents (1.9%) practised it regularly, 9 of the respondents (8.5%) practised it monthly and 3 of the respondents (2.8%) practised it irregularly. It is noteworthy to mention that 86.8% of the respondents (92 out of 106) never practised BSE despite of their knowledge about it.

TABLE 5: Percentage Distribution of female college students in the age group 18 years and above w.r.t to their Practice Breast Self-Examination(BSE):

BSE	Number (Total 106)	Percent
1. Regularly	02	1.9
2. Monthly	09	8.5
3. Irregularly	03	2.8
4. Never	92	86.8
TOTAL	106	100.0

CONCLUSION AND POLICY PRESCRIPTION

This study reveals that the study population is aware of breast cancer. However, their knowledge regarding risk factors is inadequate. Though they have some knowledge about a few risk factors, yet their awareness level is not exhaustive. Adequate and comprehensive knowledge of the risk factors of breast cancer would go a long way in assessing the risk category, these young students might belong to and thereby help in early detection of the disease and thus increase their chances of survival. Moreover, knowledge of symptoms related to breast cancer have been found to be insufficient among the respondents of the study. As far as BSE is concerned, the young female students are unaware of its importance. The study revealed that only a meagre 35% (106 out of 300) of the female students under study were aware of BSE and out these only 14 of them (13.2%) practised BSE to some extent. Majority of the female students (86.8%) never practised BSE despite their knowledge about it, either due to insufficient knowledge about how to conduct BSE or due to lack of awareness of the importance of BSE as far as early detection and reduction of mortality due to breast cancer is concerned.

Breast cancer remains an under discussed topic in India because of cultural taboo. Indian women, especially the young female population need to be aware of both modifiable and unmodifiable risk factors, symptoms of breast cancer and BSE techniques. This would not only help them to adopt appropriate practices for themselves for prevention, early detection, and chances of survival but at the same time create awareness among the general mass about breast cancer and its detection. The government should come up with nationwide and statewide cancer literacy programmes. Health education at high school level, college and university level should be done more aggressively. Targeted intervention of high-risk communities is the need of the hour. Training on risk factors should be provided to healthcare providers which would not only increase their cancer literacy but at the same time help in transmitting their knowledge to other sections of the society.

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