



A Comparative Assessment of Knowledge and Awareness Regarding Breast Cancer among Women of Reproductive Age Group in District Etawah

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ABSTRACT

Introduction: Late presentation has been observed as the hallmark of breast cancer, due to lack of awareness and non-existent breast cancer screening programmes. Breast cancer is the most common female cancer worldwide including India. The study was conducted to assess the awareness about breast cancer among the reproductive women and to find out the factors responsible for increased awareness.

Methodology: A cross-sectional descriptive study was carried out among 250 reproductive age group females of rural and urban area of Etawah district. Information was collected under following broad headings:-Educational Status, socio-demographic profile and knowledge of various risk factors, preventive measures and screening.

Result: Majority of the participants were illiterate (23%) and belong to upper lower (34%) and lower class (33%). Out of 250 participants 147(59%) were unaware about breast cancer. On comparing knowledge, rural females were more unaware about breast cancer, its warning symptoms, signs and its preventive measures. Also awareness of Self Breast Examination was very low in both urban and rural population.

Conclusion: The present study hereby concludes that knowledge about breast cancer among reproductive females was low. In comparison to urban area this knowledge is very low in rural area.

Keywords: Knowledge of breast cancer, Reproductive age group, risk factor for Breast Cancer.

INTRODUCTION:

Breasts are one of the most common site of malignancy in women. Breast cancer is the most commonly diagnosed cancer among American women. Breast cancer is the second leading cause of cancer death in women (Only lung cancer kills more women each year).¹ Early Breast Cancer (EBC) 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.²

The incidence of breast cancer is increasing in the developing countries due to increase in life expectancy, increase in urbanization and adoption of western lifestyles. Limited resource settings with weak health systems in less incidence areas of breast cancer where majority of women diagnosed in their late stages are in much need of awareness for early diagnosis like self breast examination.³

In India, 1,55,000 (all ages) of new cancer cases in 2015 were detected with breast cancer among which 76000 women died of breast cancer.

1,55,000/76000=2.04. So roughly, in India, for every 2 women newly diagnosed with breast cancer, one lady is dying of it. ⁴

Incidence rates within India display a 3-4 folds variation across the country, with the highest rates observed in the North-East and in major metropolitan cities such as Mumbai and New Delhi.⁵ Like the overall poor health awareness, awareness of breast cancer is low. Mortality rates continues to rise in the country among females despite of long-standing National Programmes like National Cancer Control Programme since 1975-76 which later integrated in 2010 under National Programme for Prevention and control of Cancer, Diabetes, Cardiovascular Diseases and Stroke.

Major barriers for low “cancer awareness” or “awareness deficit” among women due to presence of stigma, fear, taboo, gender inequity and reduced engagement in screening behaviours for example: self breast examination, mammography and triple assessment. Therefore, we conducted this comparative study to know breast cancer awareness among rural and urban females of district Etawah, which includes awareness about early diagnosis and treatment, sign and symptoms, risk factors, preventive measures and screening. Therefore the main objectives of the study were to assess the awareness about breast cancer among the women of reproductive age group and to find out the factors responsible for awareness.

MATERIAL & METHODS

A comparative cross-sectional study was conducted from 1st of Sept. to 2nd of Oct 2016 on females of reproductive age group (15-45 years) residing in district Etawah and coming to Urban Health Training Centre, Etawah and Gynaecology O.P.D., Uttar Pradesh University of Medical Sciences, Saifai, Etawah as well. For comparison 125 females from urban and 125 females from rural area from district Etawah were chosen.

Sample Size was 250. *It was calculated using the formula: $N=4pq/l^2$ $p=0.56^6$, $q= 1-0.56$, $l=10\%$ (absolute error),* On putting the values in above formula N came to be 98.56. Therefore, we purposively interviewed 125 subjects from urban Etawah (i.e., UHTC, Etawah) and 125 from rural Saifai (i.e., Uttar Pradesh University of Medical Sciences, Saifai, Etawah) to make a comparable group. The Sampling type used was purposive non-probability sampling.

A predesigned pretested structured questionnaire was formed and each female visiting to UHTC, Etawah and Gynaecology O.P.D., Uttar Pradesh University of Medical Sciences, Saifai, Etawah were interviewed. A prior informed verbal consent was

taken after explaining the aim and objectives of the study before starting the interview. Further the respondents were educated about breast cancer and its various risk factors, preventive measures and screening procedures like breast self examination and mammography. The information was collected under following broad headings like educational status, socio-demographic profile, knowledge of various risk factors, preventive measures and screening.

Note: Modified B.G. Prasad S.E. Classification (MARCH 2016(CPI-268)) scale was used for assessing socio-economic status.¹¹

Data was entered in Microsoft excel sheet and exported and analyzed using IBM Statistical Package for Social Sciences version 23 and chi-square test was applied. Ethical clearance was obtained from Ethical Committee of Uttar Pradesh University of Medical Sciences, Saifai, Etawah.

We considered risk factors summarized in a systematic review conducted by an expert panel committee of the International Agency for Research on Cancer (IARC), the World Cancer Research Fund (WCRF) and the American Institute of Cancer Research (AICR). They classified breast cancer risk factors on the basis of the strength of existing evidence such as sufficient/ convincing evidence; insufficient/weak evidence and no conclusive evidence. ⁸

RESULTS

A total of 250 respondents were studied among them majority were illiterate (22.8%) and belong to upper lower (34.4%) and lower class (32.8%) (Table1). Out of 250 participants 147(59%) were unaware about breast cancer. On comparing knowledge of rural females with urban females it was seen that rural females were more unaware about breast cancer. This difference was statistically significant. Similarly, there was statistical significant difference in its warning symptoms and signs and its preventive measures between urban and rural population.

Also awareness of Self Breast Examination was very low in both urban and rural population (Table 2). On comparing the awareness regarding breast cancer based on Educational Status it was found that as the literacy level increases, the awareness also increased and this difference was statistically significant.(Table 3) With the increase in literacy status, women were more aware of warning symptoms and signs, risk factors and preventive measures but knowledge of breast self examination and were still very low in all females irrespective of their literacy.

Table 1: Demographic characteristics of women

Characteristics	Frequency (n=250) (%)
Education	
Illiterate	57 (22.8)
5th	24 (9.6)
8th	33 (13.2)
10th	42 (16.8)
12th	39 (15.6)
Graduate	36 (14.4)
Post-graduate	19 (7.6)
Religion	
Hindu	193 (77.2)
Islam	57 (22.8)
Socio-Economic Status	
Lower Class	82 (32.8)
Lower Middle	32 (12.8)
Upper	13 (5.2)
Upper Lower	86 (34.4)
Upper Middle	37 (14.8)
Category	
General	124 (48)
OBC	91 (38)
SC	35 (14)

Similarly, on comparing awareness of breast cancer on the basis of Socio - economic status, it was noted that as it increases, awareness also increases. This difference was not statistically significant except for breast-self examination (Table 4). But the awareness regarding early detection, breast self examination and screening methods was still very poor in all sections irrespective of their socio-economic status.

Source of information about breast cancer awareness most common is from friends and relatives followed by newspaper, television, radio and magazines. Also the awareness of symptoms among females most commonly was mass in breast followed by pain in breast and discharge from breast. Risk factors about which respondents most frequently aware is smoking, alcohol followed by obesity. Preventive measures of which respondents were more frequently aware are breast feeding practices, breast cleanliness and washing regularly.

Table2: Comparison of breast cancer awareness among Urban and Rural population

Questions on Awareness		Urban (%)	Rural (%)	Total (%)	p value
Heard of breast cancer	Y	67 (53.6)	43 (34.4)	110 (44)	0.0022
	N	58 (46.4)	82 (65.6)	140 (56)	
Early Detection	Y	43 (34.4)	34 (27.2)	77 (30.4)	0.2176
	N	82 (65.6)	91 (72.8)	173 (69.6)	
Risk Factors	Y	59 (47.2)	37 (29.6)	96 (38.4)	0.0042
	N	66 (52.8)	88 (70.4)	154 (61.6)	
Preventive Factors	Y	60 (48)	33 (26.4)	93 (37.2)	0.0004
	N	65 (52)	92 (73.6)	157 (62.8)	
Breast Self Examination	Y	8 (6.4)	5 (4)	13 (5.2)	0.392
	N	117 (93.6)	120 (96)	237 (94.8)	
Screening	Y	10 (8)	4 (3.2)	14 (5.6)	0.0991
	N	115 (92)	121 (96.8)	236 (94.4)	
Symptoms	Y	52 (41.6)	38 (30.4)	103 (41.2)	0.0652
	N	73 (58.4)	87 (69.6)	147 (58.8)	
Signs	Y	64 (51.2)	40 (32)	104 (41.6)	0.003
	N	61 (48.8)	85 (68)	146 (58.4)	

P value < 0.05 is significant.

Table 3: Comparison of breast cancer awareness among females on basis of education

Question on awareness		Junior High and below (%)	High School and above (%)	p value
Heard of breast cancer	Y	26 (22.8)	77 (56.6)	0.00001
	N	88 (77.2)	59 (43.4)	
Early detection	Y	24 (21)	59 (43.4)	0.0002
	N	90 (78.9)	77 (56.6)	
Risk factors	Y	22 (19.3)	74 (54.4)	0.0001
	N	92 (80.7)	62 (45.6)	
Symptoms	Y	27 (23.7)	78 (57.4)	0.0001
	N	87 (76.3)	58 (42.6)	
Signs	Y	24 (21)	78 (57.3)	0.0001
	N	90 (78.9)	58 (42.6)	
Preventive factors	Y	22 (19.2)	71 (52.2)	0.0001
	N	92 (80.7)	65 (47.8)	
Breast self Examination	Y	4 (3.51)	10 (7.35)	0.1884
	N	110 (96.5)	126 (92.6)	
Screening	Y	10 (8.7)	13 (9.6)	0.8231
	N	104 (91.2)	123 (90.4)	

P value < 0.05 is significant.

Table 4: Comparison of breast cancer awareness among females on basis of Socio-Economic Status

Questions on awareness		Lower & Lower middle(%)	Upper, Upper lower & Upper middle (%)	p Value
Symptoms	Y	42 (36.8)	64 (47)	0.105
	N	72 (63.1)	72 (52.9)	
Signs	Y	43 (37.7)	62 (45.6)	0.208
	N	71 (62.3)	74 (54.4)	
Heard of breast cancer	Y	45 (39.5)	58 (42.6)	0.610
	N	69 (60.5)	78 (57.3)	
Early detection	Y	35 (30.7)	41 (30.1)	0.92
	N	79 (69.3)	95 (69.9)	
Risk factors	Y	39 (34.2)	57 (41.9)	0.21
	N	75 (65.7)	79 (58.1)	
Preventive factors	Y	36 (31.6)	56 (41.2)	0.116
	N	78 (68.4)	80 (58.8)	
Breast self examination	Y	10 (8.7)	3 (2)	0.019
	N	104 (91.2)	133 (97.8)	
Screening	Y	8 (7)	6 (4.4)	0.3711
	N	106 (93)	130 (95.6)	

P value < 0.05 is significant.

DISCUSSION

The incidence of breast cancer in India is low but rising ⁷. Breast cancer are more common in urban women as compare to rural women and this difference could be attributed to various factors like late marriage , null parity , less number of children , high fat diet , obesity , stressful life etc.

Lack of awareness of breast cancer among females of both urban and rural area is one the main factors for its late presentation. In present study 59% of females were unaware of breast cancer. However, this rate is higher than the rate reported by Somdatta P, Baridalyne N ⁶, in their study in New Delhi where 44% of females were unaware. On further analysis, it was noted that the unawareness of breast cancer, its warning symptoms and signs, risk factors and preventive measures was more among rural compare to urban females. Knowledge of Self breast examination and screening was low among females of district Etawah and comparatively very low among rural females and this difference was statistically significant. This finding is similar to studies carried out by other researchers. ⁶⁻¹⁰

On comparing the data regarding awareness of breast cancer on the basis of educational status it was noted that as the literacy status increases, knowledge about the breast cancer , warning signs, risk factors and preventive measures increases but knowledge of breast self examination and other screening methods were still very low. Likewise, the study conducted in Nigerian women practice of breast self examination (BSE) was low; only 432 participants (43.2%) admitted to carrying out the procedure in the past year. Participants with higher level of education were 3.6 times more likely to practice BSE (Odds ratio [OR] = 3.56, 95% Confidence interval [CI] 2.58-4.92). ¹²

Similarly, as Socio-economic status increases knowledge about the breast cancer increases as measured according to the Modified B.G. Prasad March 2016. This is similar to finding of Somdatta P, Baridalyne N, ⁶ in their study in New Delhi.

On assessing data regarding on mode of information, relatives and friends were more common mode followed by print media, television and radio. However, this is against the findings of Somdatta P, Baridalyne N, ⁶ in their study in New Delhi where television is the most common followed by relatives and friends.

CONCLUSION

The present study hereby concludes that knowledge about breast cancer among reproductive females was low. In comparison to urban area this knowledge is very low in rural area. There is no way we can prevent breast cancer, but early detection is the key to longer survival. So increasing knowledge among females of reproductive age group using multi prognostic approach would be a key measure in increasing the early detection of breast cancer.

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