



# KNOWLEDGE OF BREAST CANCER AND ITS RISK FACTORS AMONG RURAL WOMEN OF PUDUCHERRY – A CROSS SECTIONAL STUDY

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## ABSTRACT

**Background:** Breast cancer is the most common cause of cancer deaths in our country and worldwide. It is originating from the ducts or lobules in the breast tissue, called as ductal or lobular carcinomas.

**Aims and Objectives:** To estimate the awareness of breast cancer among rural women and to find out the knowledge regarding, risk factors, sign & symptoms of breast cancer among the participants.

**Materials and Methods:** A descriptive cross-sectional study was under taken among 258 women in the villages, which comes under the rural field practice area of Department of Community Medicine, AVMC&H.

**Results:** Among the 258 women, who were interviewed only 251 (97.2%) participants, were aware about Breast cancer. Most of the participants (26.69%) received information from Television and followed by Neighbors/friends (22.31%). Approximately 30% of the individuals were not aware of most of the risk factors, causing breast cancer. Almost 20% were unaware that all risk factors which were asked will cause breast cancer. Most of the respondents identified that lump in the breast (68.12%), pain in the breast (45.21%), ulcer in the breast (49.8%), lump under armpit (41.43%) are one of the sign and symptoms of breast cancer.

**Conclusion:** Overall, the participants had limited knowledge of risk factors and sign and symptoms of breast cancer. The need of an intensive breast cancer awareness campaign is necessary in these areas to help them in early detection and prevention of breast cancer.

**Key Words:** Breast cancer, Awareness, Knowledge, Risk factors, Sign and symptoms and rural women.

## INTRODUCTION

Breast cancer is by far the most frequent cancer among women, with an estimated 1.38 million new cases diagnosed in 2008. It is now the most common cancer both in developed and developing regions with about 690,000 new cases estimated in each region. <sup>(1)</sup> Most cancer cases and deaths are potentially preventable, including Breast cancer. <sup>(2)</sup> Having adequate knowledge of Breast cancer encourages and empowers women to participate in the screening programme to prevent the disease.

Cancer is now the third leading cause of death, with more than 12 million new cases and 7.6 million cancer deaths estimated to have occurred globally. By 2030, it is projected that there will be 26 million new cancer cases and 17 million

cancer deaths per year. The projected increase will be driven largely in low-and medium- resource countries. Under current trend, increase in longevity in developing countries will nearly triple the number of people who survive to age 65 by 2050. <sup>(3)</sup>

Breast cancer is an increasing health problem in India too. The trend of rising incidence rates is likely to continue due to further changes in life style factors such as child bearing and dietary habits. India faces a high burden of breast cancer disease in the late stage presentation being a common feature. <sup>(4)</sup>

Data from the International Agency for Research on Cancer (IARC) registry suggest that 45% of newly diagnosed cases of breast cancer and 55% of breast cancer-related mortality currently occur in low- and middle-income countries. IARC

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trends also show a 20-30% increase in the incidence of breast cancer in developing countries during the past decade. <sup>(5)</sup> As per the ICMR-PBCR data, breast cancer is the commonest cancer among women in urban registries of Delhi, Mumbai, Ahmedabad, Kolkata, and Trivandrum where it constitutes >30% of all cancers in females (National Cancer Registry Programme, 2001). In the rural PBCR of Barshi, breast cancer is the second commonest cancer in women after cancer of the uterine cervix (National Cancer Registry Programme, (2001)).<sup>(6)</sup>

Many studies have been carried out in our country both in urban as well as rural area. We have planned to carry out the study in our field practice area to know about the awareness level in our community, so that we can plan for the awareness programme in the community with our students and medical interns.

## METHODOLOGY

This was a descriptive cross-sectional study done over a period of 6 months, from March 2014 to September 2014. The study was carried out in the field practice area of Department of Community Medicine, A V Medical College and Hospital Pudhucherry. A door to door survey was done to identify women of more than 20 years of age group by the trained paramedical workers and CRRI's. The houses which were locked and the women who were not willing to participate in the study were excluded from the study. Oral consent was obtained to the participants before collecting the data. The data was collected by using a structured and a pre-tested questionnaire. The questionnaire consisted of information such as preliminary data, socio-demographic factors, awareness regarding breast cancer, risk factors and signs and symptoms of breast cancer. The data was collected and analyzed using suitable statistical methods.

## RESULTS

The total number of study participants was 258 in the age group of 20 to 65 years. Majority of the participants were in the age group of 20-29 and 30-39 years of age group as 34% and 32% respectively. Their mean age was 36.2 years and standard deviation was 10.1. 96% of the study participants were Hindus, 90.7% were married, 56.6% has completed their middle schooling, 88.4% were unskilled workers and 30% of them were belongs to class IV and class V social class respectively, according to Modified BG. Prasad "s classification.(Table 1)

Among 258 women, who were interviewed only 251 (97.2%) participants were aware about the breast cancer. The majority of the participants obtained information regarding breast

cancer by means of television (26.69%), neighbours/friends (22.31%), doctors/health care personnel (19.52%) and relatives (16.33%) respectively as shown in fig. 1. Regarding the knowledge and risk factors of breast cancer, the participants gave the responses as yes/no/don't know. Approximately 30% of the individuals were not aware of most of the risk factors, which can cause breast cancer. Only 42.2%, 67.1% and 43% knew that high fat intake, not breast feeding the child and smoking respectively were the risk factors which may cause breast cancer. The participants, who were interviewed, did not have any idea about some of the risk factors such as, intake of alcohol (45.3%), early menarche (48.8%), stress (38.4%) and family history of breast cancer (41.9%) can cause breast cancer. Almost 20% of the study participants were sure that all the above risk factors will not cause breast cancer. Some of the respondents did not know that, the risk factors like late age of 1<sup>st</sup> child birth (52.2%), late menopause (44.2%) and large breast (32.2%) can cause breast cancer as shown in table 2.

Data was collected regarding the signs and symptoms of breast cancer to the participants who were aware of the breast cancer (n = 251). Most of the respondents identified that lump in the breast (68.12%), pain in the breast (45.21%), ulcer in the breast (49.8%), lump under armpit (41.43%) and change in the skin of the breast (42.23%) are one of the signs and symptoms of breast cancer. Many individuals were not aware that these were also some of the signs and symptoms of breast cancer such as, weight loss(64.1%), change in the size/shape of the breast (64.94%), change in the skin (57.76%) and pulling in of the nipple (70.91%) as shown in fig. 2.

## DISCUSSION

This was a community based cross-sectional study conducted in the field practice area of Department of community Medicine, A V Medical College. Most of the study participants were in the age group of 20-30 and 31-39 years as 34% and 32.6% respectively and 90% were married and 88.4% were unskilled workers. Breast cancer awareness was found in 97.2% of the study participants. More or less similar findings were observed in the study done by Anantha Lakshmi Satyawathi et al. <sup>(7)</sup> In their study most of the participants (72.3%) were in the age group of 21-40 years and 96.1% were aware about the disease. This study shows majority of them acquired information regarding breast cancer over Television (26.69%) and followed by neighbours/friends (22.31%) and by Doctors and Health care providers (19.52%). These results were consistent with the findings of the similar study done by Sim et al, <sup>(8)</sup> in 2009. Some of the previous studies have suggested that awareness and knowledge of breast cancer through health education by Doctors

and Nurses may be very effective resources for women as shown by Seow et al. <sup>(9)</sup>

In the present study data was collected regarding the knowledge of signs and symptoms of breast cancer. It was observed that only less number of participants were aware about the signs and symptoms. Majority of them were not knowing pain/ulcer in the breast, swelling under armpit, change in the size/shape of the breast and pulling in of the nipple as one of the sign and symptoms of breast cancer. Similar findings were observed in the study done by Sami Abdo Al- et al. <sup>(10)</sup> Our study also showed 68.12% of the respondents were clear that lump in the breast as one of the sign and symptom of breast cancer. This finding seems to be consistent with the study done by Monteazeri et al. <sup>(11)</sup> Regarding the risk factors, it was reported 44.6%, 42.2%, 67.1% and 43% has agreed that high fat diet, increase in the age, no breast feeding and smoking respectively are one of the risk factors to develop breast cancer. More or less similar observation was noticed in the study done by S. Ahuja et al. <sup>(12)</sup> A vast majority of the study participants did not appreciate positive family history of breast cancer (41.9%), 1<sup>st</sup> child at late age (52.3%) and late menopause (44.2%) as the risk factors of breast cancer. Almost same results were noted by Muhammad A et al, in their study conducted at Malaysia. <sup>(13)</sup>

### CONCLUSION

This study reveals there is lack of awareness and knowledge regarding common risk factors as well as the signs and symptoms of breast cancer. There is a need to promote the knowledge of breast cancer by imparting greater health education methods by using suitable audio and visual aids. Breast cancer awareness education should be integrated into existing health education programme within the community level, at the hospital and government level.

**Table 1: Social Demographic profile of the participants (N = 258).**

Age Group	Number	Percentage
< 30	88	34.1
30-39	84	32.6
40-49	68	26.4
50-59	9	3.5
> 60	9	3.5
<b>Marital Status</b>		
Married	234	90.7
Single	6	2.3
Widow	18	7
<b>Education</b>		
Primary	28	10.9
Middle	146	56.6

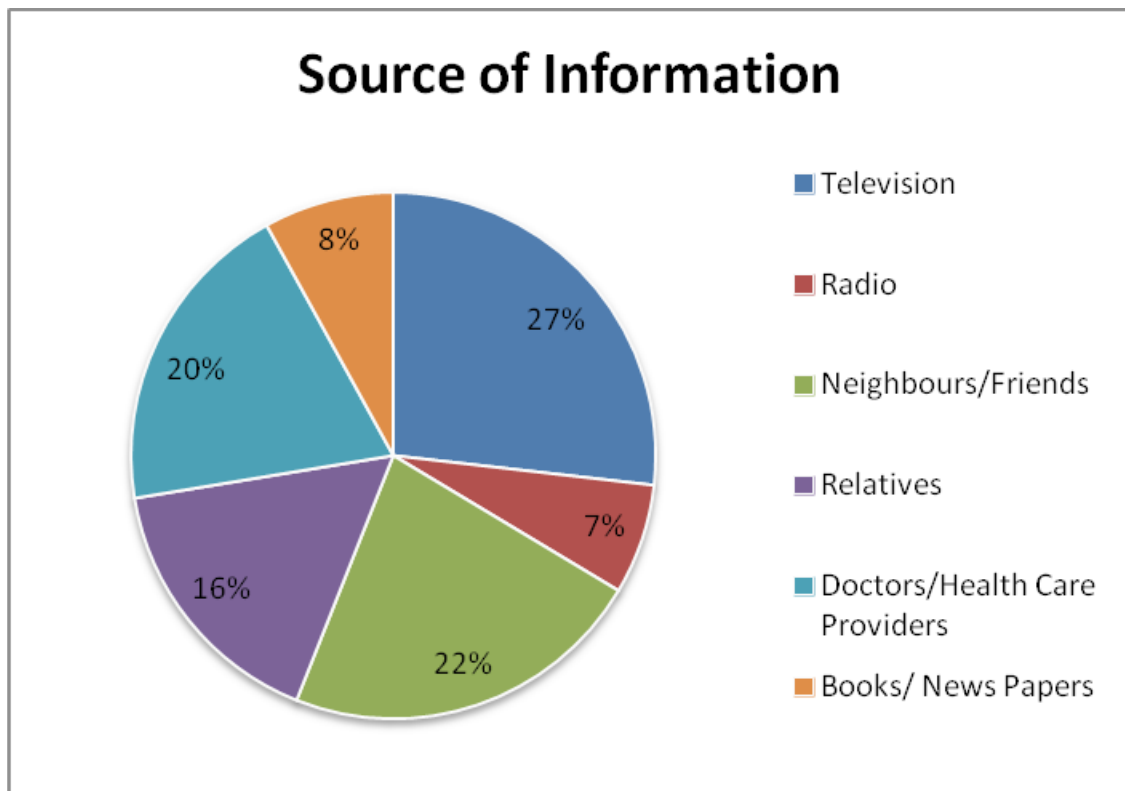
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Higher Secondary	18	7
Diploma	12	4.7
Degree	12	4.7
Illiterate	42	16.3
<b>Occupation</b>		
Unskilled	228	88.4
Semiskilled	21	8.1
Skilled	9	3.5
<b>Income</b>		
Class I	14	5.4
Class II	26	10
Class III	62	24
Class IV	78	30.2
Class V	78	30.2

**Table 2: Awareness of risk factors of breast cancer among the respondents.**

Risk Factors	Don't Know N (%)	No N (%)	Yes N (%)
Increasing Age	75 (29.1)	68 (26.4)	115 (44.6)
High Fat intake	78 (30.2)	71 (27.5)	109 (42.2)
Alcohol	117 (45.3)	69 (26.7)	72 (27.9)
Early Menarche	126 (48.8)	88 (34.1)	44 (17.1)
Stress	99 (38.4)	76 (29.5)	83 (32.2)
No Breast Feeding	57 (22.1)	28 (10.8)	173 (67.1)
Family History	108 (41.9)	70 (27.1)	80 (31.0)
Smoking	96 (37.2)	51 (19.8)	111 (43.0)
First child at late age	135 (52.3)	73 (28.3)	50 (19.4)
Late menopause	114 (44.2)	53 (20.5)	91 (35.3)
Large breast	96 (37.2)	76 (29.5)	86 (33.3)



**Figure 1:** Source of information obtained by the study participants regarding breast cancer.

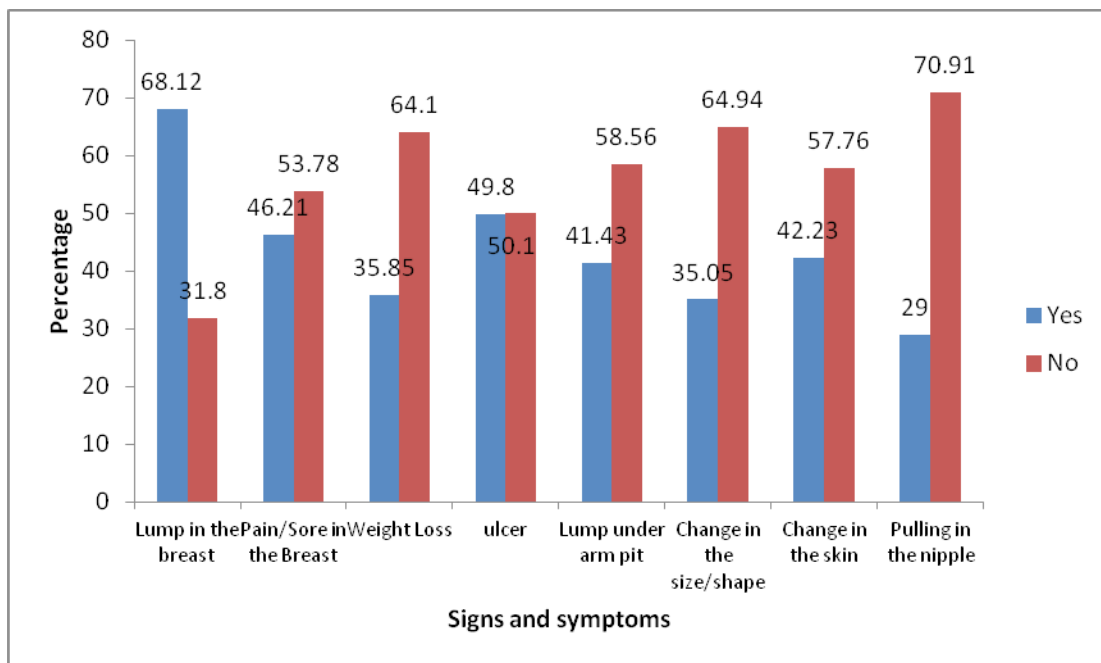


Figure 2: Awareness signs and symptoms of breast cancer among the respondents (n=251).