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Research Article

EVALUATION OF AWARENESS, KNOWLEDGE, BARRIERS AND ATTITUDE TOWARDS BREAST CANCER AMONG INDIAN RURAL POPULATION

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ABSTRACT

Breast cancer has ranked first among Indian female population and they could be saved if they had timely access to early detection for treatment. The present study was designed to determine the awareness, knowledge, barriers and attitude on breast cancer among the rural population in south India by semi-structured questionnaire. Result showed only 21% of the studied population was aware of breast cancer, which includes about breast cancer (52%), Breast Self-Examination (10%), high risk in above 50 years of age (8%), non-lacting women (22%), hereditary (32%), early menstrual and later menopause (3%) and 1st child birth after 30yrs (22%). Over all 18.5.% had knowledge on breast cancer which includes at the age of 20 should do breast self-examination (BSE) and done every month on 7th day after menstruation(6%), clinical breast examination in 2 years once(2%), BSE done on standing with head supine position(1%), lump in breast with or without pain (32%), blood / pus discharge(38%), change in size, shape, colour of breast and inversion of nipple(22%) are the sign of breast cancer. The knowledge on clinical breast examination that done every year after 40 yrs (4%), screening methods (38%) and the treatment (24%) for cancer. Though awareness and knowledge about breast cancer was low but studied showed positive attitude want to know how to perform BSE (94%), check for CBE (62%), monthly performance of SEB (92%), regular yearly CBE (62%), immediate CBE if any lump or discharge (89%) observed and assured to create awareness and knowledge on breast cancer and BSE for their family members and friends (98%). The present study concludes that lack of awareness and knowledge about breast cancer and to perform BSE made barrier for most of the studied population for early screening and treatment for breast cancer.

Keywords :- Breast Cancer; Breast Self examination; Clinical Breast Examination, Knowledge, Awareness.

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INTRODUCTION

Cancer occurs when cell divides out of control, results in clump called tumours. Despite the presence of the normal vascular system, tumours induce growth of new vessels, called “angiogenesis” into the tumour, due to vast need of oxygen and nutrients for growth. Cancer cells can spread to other parts of the body through the blood circulation or lymph system called metastasis and accelerates the uptake of most of the nutrients and oxygen by the cancer cells. The common cancer types include Bladder Cancer, Breast Cancer, Colon and Rectal Cancer, Endometrial

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Cancer, Kidney Cancer, Leukemia, Liver, Lung Cancer, Melanoma, Non-Hodgkin Lymphoma, Pancreatic Cancer, Prostate Cancer, Thyroid Cancer etc. of which breast cancer is the most common type of cancer.

Breast cancer is the most common cancer among females and second leading cause of deaths among women worldwide [1]. Statistical data revealed annual morbidity and mortality of breast cancer are escalate in which more than 1.7 million women are diagnosed globally with breast cancer and more than 502,000 of them die because of breast cancer. The disease accounts for more than 1.6% of female mortality globally [2]. Breast cancer is a major public health problem increasingly predominant in low- and middle-income countries, where incidence rates have been increased by up to 5% per year. According to the World Health Organization, the incidence rates in the developing countries are more because growing urbanization and adoption of Western lifestyles [3]. The global burden of breast cancer is expected to 2 million by 2030 [4].

In India, Breast cancer has ranked first among Indian female population with 26 in 100,000 women and mortality rate is about 13 in 100,000 women. Based on the national cancer registries on breast cancer report, it was found that 41 from 100,000 women in Delhi, followed by Chennai had 38 from 100,000 women, Bangalore reported 34 from 100,000 and Thiruvananthapuram had 34 from 100,000 was recorded. Mortality-to-incidence ratio was found to be high of 66 in rural registries and 8 in urban registries. The incidence of Breast cancer in India during 2020 is expected to 1797900 [5].

As the incidence of breast cancer is increasing at an alarming rate especially in the rural population of Indian, it is very much essential to understand the level of awareness and knowledge on breast cancer particularly in the rural population. It also essential to identify the barriers relevant to the early screening for breast cancer. Since for better health awareness, knowledge and removing the barriers with positive attitude on breast cancer will reduce the morbidity and mortality rate by making them for self-examination, early screening and treatment, also to create awareness and educate others.

The present study was designed to determine the awareness and knowledge on breast cancer with barriers for early detection and attitude on breast cancer was studied among the rural population in and around at Pondicherry, India.

Materials and Methods

A study was designed in a randomly selected village in and around the Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry, South India. A semi-structured questionnaire was designed by reviewing the published articles and experts. It was then peer reviewed and translated into Tamil language. Translated version was peer reviewed again by experts and appropriate changes were made in the questionnaire. An informed verbal consent was taken before conducting the study. The institutional ethical clearance was also obtained. The women who are less than 18 years of age and those who are not willing to participate were excluded in this study.

Statistical analysis

Data's were expressed in percentage

Result

Eight hundred and seventy-two women between 20 and 60 years of age were participated of which 48% of women between the age group of 50 -60; 28% of women between the age group of 40-50, followed by 16% of women between the age group of 30-40 and remaining 8% of women between the age group of 20-30. Literate among the studied population was only 12% (105) of them are graduates, 38% (331) of them are upto high school, followed by 28% (244) are only with primary schooling and remaining 22% (192) women's are illiterate (Figure No. 1).

The level of awareness among the studied population showed almost 94% (820) of women were aware about the cancer and only 44% (384) knows early detection can curable. About breast cancer, 52% (454) of the studied population were aware and they came to know through family history, friends, nearby neighbours and medias, 22% (192) of women population aware that non-lactating is prone for breast cancer and only 10% (88) aware about the self-examination of breast. About 8% (70) aware that increase in age is high risk of breast cancer and 32% (280) aware that breast cancer is hereditary. Only 3% (27) of studied population was aware that early age of menstruation and late age of menopause is risk of breast cancer. About 22% (192) of the studied population aware that birth to 1st child after the age of 30 is risk of breast cancer (Figure No. 2).

The knowledge on breast cancer was assessed in which 6% (53) knows at the age of 20 should do breast self-examination (BSE) and only 2% (17) had knowledge BSE should done every month on 7th day after menstruation, followed by clinical breast examination in 2 years once. Only 1% (9) of the studied population showed knowledge on BSE done on standing with head supine position. The 32% (280) of women had knowledge on lump in breast with or without pain may be a warning sign of breast cancer. About 38% (332) of population had knowledge that blood / pus discharge may sign of breast cancer and 22% (192) of population had knowledge on change in size, shape, colour of breast and inversion of nipple may be sign of breast cancer. Only 4% (35) of women had knowledge that clinical breast examination should done every year for those who are above 40 years. About 38% (332) of studied women had knowledge on

screening methods of Mammography, thermography and ultrasonography for breast cancer and 24% (210) had knowledge about the treatment for breast cancer is radiotherapy, chemotherapy and surgery (Figure No. 3)

FIGURE NO. 1. PERCENTAGE OF LITERACY RATE AMONG THE STUDIED POPULATION INDEX.

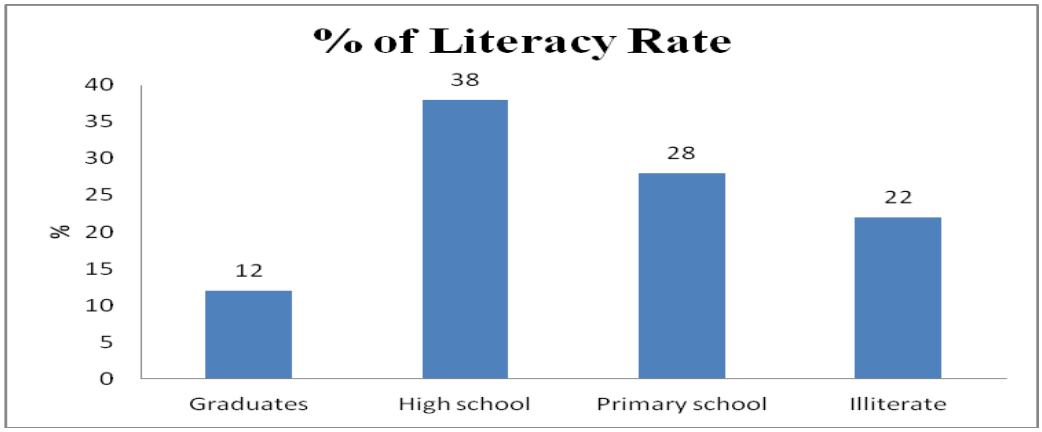


FIGURE NO. 2 AWARENESS ON BREAST CANCER AMONG THE STUDIED POPULATION.

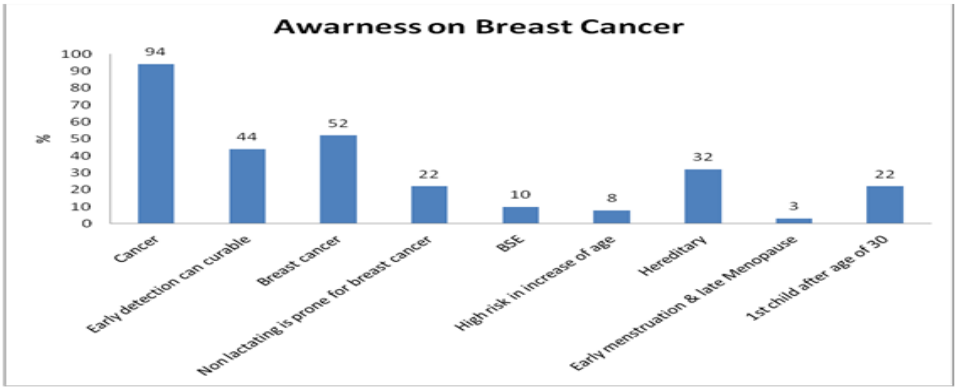
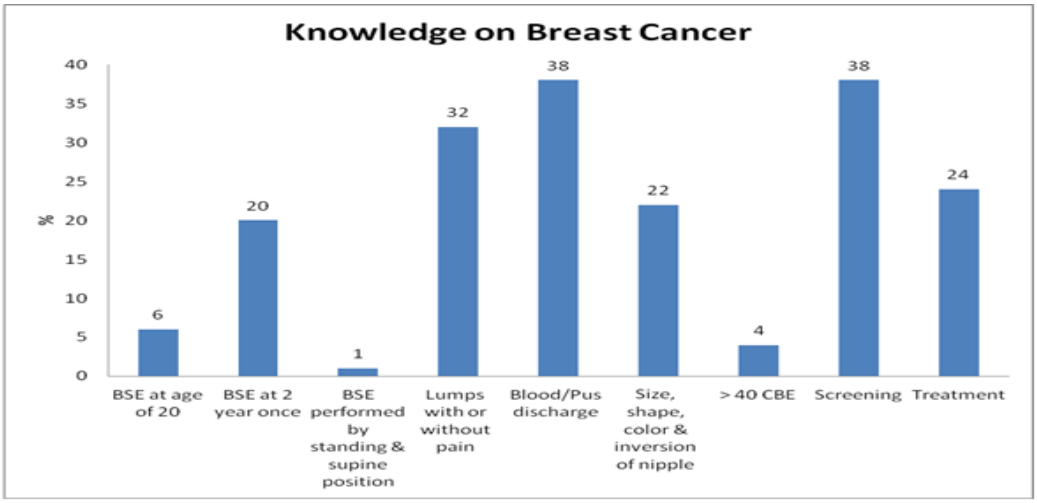


FIGURE NO. 3 KNOWLEDGE ON BREAST CANCER AMONG THE STUDIED POPULATION.



DISCUSSION

In the present study breast cancer was chosen among other type of cancer, since breast cancer ranked first among the Indian female population and expected tobe elevate about 1797900 by 2020 [6]. Burden of Breast cancer is not only in India, but also leading cause of death of women's globally and millions of breast cancer patient's life's could be saved if they had timely access to early detection for treatment. Nearly 72% of India's population stays in rural area and most of them are aged women's which are mostly illiterate. In addition, according to Malvi *et al* study, mortality to incidence ratio was found to be high of 66 in rural and 8 in urban population [5]. Hence, the present study was carried in the nearby villages of in and around Pondicherry, India and questionnaires was explained with meaning orally and also made with vernacular language (Tamil) for easy to reach their mind and make them understand.

In the present study only 8% of women between the age group of 20-30 were participated, this may due feel shy / fear, person may not be familiarly to them / they may engaged with marriage may be the reasons to participate in this study. The exact barrier for poor participant of age group between 20-30 should be identified and ruled out. In relevant to education, 12% of participant had graduation, as only 8% of young women between 20-30 of age were participated and most of the women were at the age of above 45, hence in the present study only 12% of graduation was participated and 22% are illiterate was recorded, in addition, this study was conducted only in rural places of Pondicherry, India.

Though 94% of the studied population aware about the cancer, but only 52% were aware about the breast cancer type and 44% knows that early detection can cure cancer. Form this it is clearly explored that the lack of awareness about the breast cancer is the main hindrance for early detection to cure / save life. About 22% aware that non-lacting is prone for breast cancer [7], as Obstetrics and Gynecology doctors, Primary Health centres and Government should sensitize and aware the women population about the importance of breast feeding is the first vaccine for children and also reduce the incidence of breast cancer [8]. The present study observed that only 10% was aware about the Self Breast Examination, as it plays a vital role in the early detection of breast cancer [9]. Only 8% of studied population aware that increase in age is risk of breast cancer [10]. The least awareness is on early age of menstruation and late age of menopause is risk of breast cancer was recorded in this study [11], and 22% aware that birth to 1st child after age of 30 is risk of breast cancer [12]. Overall, only 21% showed awareness on breast cancer, which is very poor in the studied rural population, may lower the possibility of early screening and treatment for breast cancer.

The knowledge about Breast Self-Examination (SBE) was very poor among the studied population as only 6% knows from what age onwards BSE should be examined and only 2% had knowledge that 7th day after menstruation BSE should be done and every 2 years once clinical examination of breast should done for those between 20-30 years of age and only 1% had knowledge that BSE should examine by standing with supine position [13]. About 32% of women had knowledge that any lump in breast with or without pain, 38% had knowledge that blood / pus discharge and 22% had knowledge that change in size, shape colour of breast, inversion of nipple may be the signs of breast cancer. Only 4% had knowledge that CBE should be done every year for those who are above 40 years of age. The knowledge on BSE is very poor when compared to the signs of breast cancer like lump, discharge, size and shape. The reasons for this inconsistency might be due to the difference in the level of knowledge towards BSE and signs of breast cancer among the studied population. The lack of knowledge on BSE and fail to perform BSE, might be due to inadequate health education awareness programs to this target population might be the reason for limited knowledge about BSE. It is very much essential that health professional should create awareness and educate about BSE, as it plays a vital role in early screening and treatment for breast cancer [9].

The present study also explores the possible barriers for early screening and treatment of breast cancer. The most common reason is 46% is not even aware about breast cancer, 99% of studied population not aware BSE and how to perform it, 12% of the studied population don't know where and whom to approach, 6% of population feel shy, 8% of population worried about the consultant fee and 18% state that physician not well known to them and also gender difference. Less awareness on Breast cancer and BSE is the major reason of barrier for self-examination and early screening. The low awareness on breast cancer referred to awareness deficit or scarcity of awareness among women leads to stigma, fear gender inequity may lead to high mortality rate needs to educate. The emotional barrier like shy, afraid, gender, not familiar person can be taken care by conducting health education session for delivering higher level of knowledge and economic barrier can be taken care by developing structural screening programs and free camps.

There was a positive attitude towards breast cancer and BSE was observed in this study that 94% wants to know about how to perform breast self-examination, 68% of population wants clinical breast examination, 92% of women's wants to examine BSE monthly and 62% of studied population wants CBE yearly, 89% will go for CSE immediately if they have any lump or discharge in future and 98% of population assured to create awareness and educate BSE required on monthly basis and

importance of yearly screening of CBE for their family members and friends.

Over all, the present study highlights that lack of awareness and knowledge about breast cancer and to perform BSE made barrier for most of the studied population for early screening and treatment for breast cancer, but observed positive attitude to perform regular BSE and CBE in breast cancer is encouraging. Therefore, the present study recommends to create intensify awareness and knowledge particularly among the rural populations about the breast cancer and BSE in order to improve early detection and increase early curative treatment. Further research warrant across the nation to identify and initiate necessary measures to reduce the cause of inadequate awareness and knowledge on breast cancer and practice of BSE among rural population.

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