

Awareness of Breast Cancer Risk Factors among Nurses in a Tertiary Rural Health Care Centre in India

N N Chate, S B Deshmukh, S Y Dange

Department of Surgery, Swami Ramanand Teerth Rural Government Medical College, Ambajogai, Maharashtra, India

Abstract

Background: Breast cancer is the most common cancer in females in the world as well as in India and its incidence keeps on increasing. Early diagnosis and treatment can improve the overall survival rate of patients. The nurses play an important role in educating women and providing accurate information through specially designed educational programs in the clinical setting, as well as, through community outreach strategies that suit our social and cultural setting. This study was conducted to assess the awareness of breast cancer risk factors among nurses in Swami Ramanand Teerth Rural Government Medical College, Ambajogai, Beed district, Maharashtra.

Materials And Methods: A cross-sectional self-administered questionnaire study was conducted among the female nurses to assess the knowledge about various breast cancer risk factors. The data was analysed using the software SPSS 16.

Results: 200 nurses participated in the study with mean age of 33.23 ± 8.17 years. The highest known risk factor among the studied group was hereditary (95%) while nulliparity was the least known risk factor (67%). The nurses overall had good knowledge about the various risk factors.

Conclusion: Further improvement in knowledge among the nurses by organising continued medical education programmes by government or non-government institutions is necessary.

Keywords: Awareness, Breast cancer, India, Nurses

INTRODUCTION

Breast cancer is the most common cancer among women in both the developed and the developing world representing almost a quarter (23%) of all cancers in women.^{1,2}

The global burden of breast cancer is expected to cross 2 million by the year 2030, with growing proportions from developing countries.³

The incidence of breast cancer in India is comparatively lower than that of Western Europe (25.8 vs. 96/100,000). Breast cancer incidence rates varies considerably within

India, with the highest rates observed in north-east and major metropolitan cities such as Mumbai and New Delhi and this can be attributed to various life-style factors (e.g., tobacco and alcohol use) adopted, reproductive factors (e.g., age at first child), etc.⁴ Breast cancer is ignored by a majority of population till a near and dear one suffers from it. Healthcare is low on priority and even in major cities; screening is also an "alien" word for most people. This results in most people presenting only when symptomatic, and on an average, most cancers are Stage 2B and beyond (significant numbers in Stages 3 and 4). Hence, the breast cancer patients do not tend to survive for a longer time, as their western counterparts.⁵

Despite of national programmes, such as National Cancer Control Programme (1975), the mortality for breast cancer continues to rank highest in the country.^{6,7}

Regular clinical breast examination and mammography of women according to the internationally accepted guidelines can result in down-staging of breast cancer of asymptomatic women.⁸

Access this article online



www.surgeryijss.com

Month of Submission : 01-2017
Month of Peer Review: 02-2017
Month of Acceptance : 02-2017
Month of Publishing : 03-2017

Corresponding Author: Dr. N.N. Chate, Department of Surgery, Swami Ramanand Teerth Govt Medical College, Ambajogai. Pin 431517.
E-mail: nittinchate@gmail.com

If women are to present in early stages, there is a need for information and enlightenment about various risk factors of breast cancer and benefits of screening methods.

Health care professionals especially nurses play an important role in educating women and providing accurate information through specially designed educational programs in the clinical setting, as well as, through community outreach strategies that suit our social and cultural setting. In addition, they constitute an important source of information within their social networks.⁹

For this it is important that the nurses themselves have good knowledge about the risk factors and importance of early detection via screening.

Few studies have been conducted in India in this regard and no such study has been conducted in the state of Maharashtra earlier.

Breast cancer awareness initiative was carried out in our institute during breast cancer awareness month in October 2016 as per directive of Government of Maharashtra. We conducted this study to assess the knowledge of risk factors among the nurses in Swami Ramanand Teerth Rural Government Medical College (SRTR GMC), Ambajogai, Beed district, Maharashtra.

MATERIALS AND METHODS

A cross-sectional questionnaire study was conducted among the female nurses at SRTR GMC, Ambajogai, Maharashtra.

The target population comprised of female nurses working in the different surgical departments in SRTR GMC were informed about the study. The study was carried out in December 2016.

A self-administered questionnaire prepared by the author was employed for the study. The questionnaire contained various questions testing the knowledge regarding risk factors of breast cancer (family history, age, age at first childbirth, early menarche and late menopause, nulliparity, breast feeding, smoking, alcohol, obesity, O.C. pills and radiation exposure).

The given questions were to be answered with options “Yes” or “No”.

The data was entered in MS Excel 2010 and statistical analysis was done using SPSS 16 software.

RESULTS

A total of 200 nurses were approached and all the nurses participated in this study. The mean age of the study group

was 33.23 ± 8.17 years with maximum number of nurses in the age group of 21-30 years age group (Figure 1).

The nurses overall had a good knowledge about the risk factors of breast cancer.

The highest known risk factor among the studied group was hereditary (95%) while nulliparity was the least known risk factor (67%). Radiation exposure, early menarche and late menopause and age as risk factors for breast cancer were correctly known by 94%, 93% and 91% of the participants of the study group. Breast feeding was considered as a preventive factor for breast cancer by 85%.

89%, 82% and 80% of study population knew alcohol, smoking and obesity as risk factors for breast cancer.

OC Pills and age at first childbirth >30 years were known as risk factors by 74% and 78% of study group (Table 1).

DISCUSSION

The knowledge of health professionals is necessary to improve the knowledge of the general population and, in general, create awareness about the risk factors of breast cancer.

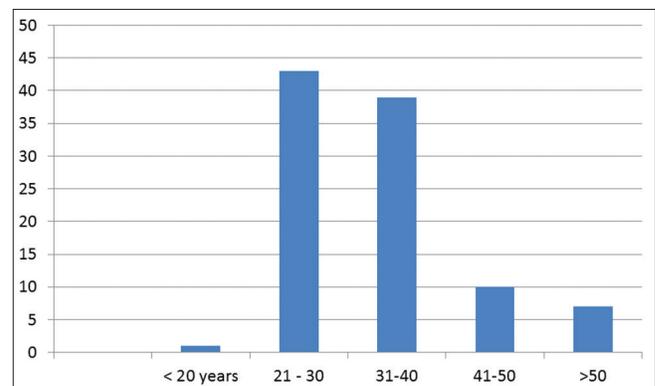


Figure 1: Age distribution of nurses in the study

Table 1: Knowledge of nurses about breast cancer risk factors

Risk factors	(n=200) (%)
Hereditary	190 (95)
Age	182 (91)
Early menarche late menopause	186 (93)
1 st childbirth >30 years	156 (78)
Nulliparity	134 (67)
Breast feeding	170 (85)
Smoking	164 (82)
Alcohol	178 (89)
Obesity	160 (80)
O.C. pills	148 (74)
Radiation exposure	188 (94)

More than 50% of the total breast cancer diagnosed annually is found in premenopausal women.¹⁰ Hence, proper knowledge about risk factors and early screening form important constituents of prevention of breast cancer.

It is important that health personnel are aware of the risk factors for breast cancer, in order to guide the patients for necessary screenings.¹¹⁻¹³

Most of the nurses in our study had good knowledge about risk factors for breast cancer.

95% of the study group identified radiation exposure as a risk factor which was higher than as reported by other studies.¹⁴⁻¹⁹

Increasing age was identified as risk factor by 91% of participants which was higher than study conducted by Fotedar and Oza (Figure 2 and Table 2).^{20,21}

Positive family history/hereditary as risk factor was known by 95%, which was comparable to study by Fotedar and Khokhar and way higher than study by Oza and in Iran where about 40% and 60% of nurses identified family history as risk factors respectively.^{15,20-22}

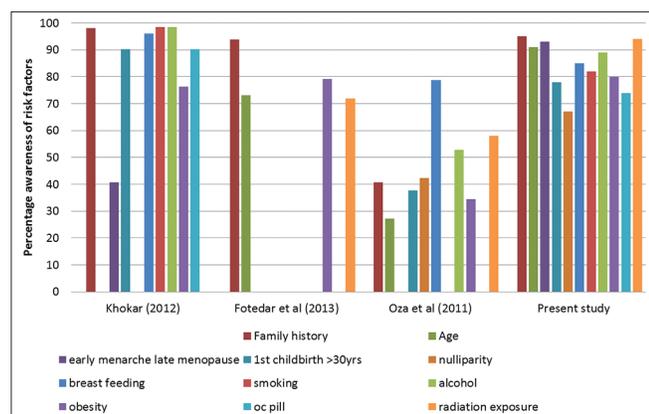


Figure 2: Percent awareness of risk factors of breast cancer among health professionals in India

Knowledge of no breast feeding, smoking, alcohol consumption and obesity as risk factors was 85%, 82%, 89% and 80% respectively which was higher than study by Oza *et al.* while knowledge of no breast feeding (96.1%) and alcohol (98.45%) was higher in study by Khokhar than in present study.^{21,22}

Early menarche(12 years) and late menopause(>55 years) were identified as high risk factors by 93% of study group as compared to less than 50% while O.C. pills were identified as high risk factor by 74% in present study which was lower than that of study by Khokhar.²²

78% of study group had knowledge of risk factor of age of >30 years at first child birth was lower than the study by Khokhar (90.3%) while higher than that of Oza (37.6%).^{21,22}

Nulliparity was the least known risk factor in study group (67%) but still was higher than the study by Oza.²¹

According to these results, the knowledge of nurses in our study about risk factors of breast cancer is higher than the studies conducted in other developing countries, though there is still scope for improvement with respect to lesser known risk factors. This high knowledge about risk factors of breast cancer can be attributed to the fact that the study was carried out after Breast Cancer Awareness month initiative was carried out in our centre in the month of October 2016 (Breast Cancer Awareness month).

CONCLUSION

This study revealed that the nurses had good knowledge about risk factors for breast cancer. It is essential for nurses and other female para-medical staff especially in a rural setup, to have awareness of risk factors, where women seek guidance from gender specific staff. They can educate the females and raise awareness of the risk

Table 2: Table comparing the studies carried out about breast cancer risk factor awareness (percent)

Risk factors	Studies			
	Khokhar ²²	Fotedar <i>et al.</i> ²⁰	Oza <i>et al.</i> ²¹	Present study
Family history	98.06	93.9	40.8	95
Age	73.1	73.1	27.2	91
Early menarche late menopause	40.7	40.7	40.8	93
1 st childbirth > 30 years	90.34	90.34	37.6	78
Nulliparity	42.4	42.4	42.4	67
Breast feeding	96.13	96.13	78.8	85
Smoking	98.45	98.45	82	82
Alcohol	98.45	98.45	52.8	89
Obesity	76.44	79.2	34.4	80
O.C. pill	90.34	90.34	74	74
Radiation exposure	71.9	71.9	58	94

factors for breast cancer and also guide them for early screening and diagnosis.

Further improvement in knowledge among the nurses by organising continued medical education programmes by government or non-government institutions is necessary.

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How to cite this article: Chate NN, Deshmukh SB, Dange SY. Awareness of Breast Cancer Risk Factors among Nurses in a Tertiary Rural Health Care Centre in India. *IJSS Journal of Surgery* 2017;3(2):57-60.

Source of Support: Nil, **Conflict of Interest:** None declared.