ORIGINAL RESEARCH

International Journal of Nursing Education
Volume 14 No. 4, October-December 2022

Small Scale Study on Awareness of Breast Cancer Among Women Aged >35years, the Risk Factors for Breast Cancer and Utilization of Mammogram

Arkierupaia Shadap

Associate Professor, Sikkim Manipal College of Nursing, Sikkim Manipal University-Sikkim 737102

How to cite this article: Shadap A. Small Scale Study on Awareness of Breast Cancer Among Women Aged >35years, the Risk Factors for Breast Cancer and Utilization of Mammogram. 2022;14(4):8-13.

ABSTRACT

Introduction: Breast cancer has become an increasing concern and is a major global public health burden. Over 100, 000 new breast cancer patients are estimated to be diagnosed annually in India. The health care facility pattern is diverse, where the benefits of the awareness, early diagnosis and treatment programs is still not available in many regions of the country. However, the study aimed to assess the awareness of the small scale community women on breast cancer, its risk factors and utilization of manmmogram as a screening test. This will give an insight for the large scale community study.

Methods: The researcher adopted a descriptive research design using a simple random sampling technique to collect data among 20 unmarried and married women from the village of Badagabettu, Udupi district, Karnataka. Tools were developed and sent for validation. Reliability of tools were done before the data collection. Data was collected after getting ethical clearance and written consent from the participants. Collected data were analyzed using the descriptive statistics through SPSS version 16.0.

Result: Majority 14 (70%) had moderate knowledge on breast cancer, 6 (30%) had poor knowledge and none (0%) were having good knowledge on breast cancer. The study also revealed that 30% were aware of mammogram and majority 70% were not. The risk factors for breast cancer among women aged 35 years also revealed that 15% women had menarche at the age of ≤ 12 years, 5% have the history of having sister diagnosed with breast cancer, 15% did not deliver baby till now and 30% women did not breast feed. There were 5% women who had the history of breast biopsy, 10% had the history of taking oral contraceptives within 5 years period and 100% did not have the history of taking alcohol in their life.

Keywords: awareness, breast cancer, women, risk factors, mammogram.

INTRODUCTION

Breast cancer has become an increasing concern and is a major global public health burden. Malignancy of the breast has been reported to be the second leading cause of cancer, accounting for 25% of all new cancer cases among women across the world in 2012.[1] Additionally, breast cancer has the highest incidence in women in low and middle-income countries. The increasing incidence in economically developing countries is likely influenced by lifestyle changes and

Corresponding author: Arkierupaia Shadap, Associate Professor, Sikkim Manipal College of Nursing, Sikkim Manipal University-Sikkim 737102

Email: arkierupaiashadap.p@smims.smu.edu.in

growing urbanization.[2] More importantly, breast cancer is known to be the leading cause of cancer deaths in women in many Asian countries.[3] According to India statistics, the number of new breast cancer cases is about 115,000 per year and this is expected to rise to 250,000 new cases per year by 2015. To reduce mortality from breast cancer, early detection through awareness on screening test is a must.[4] Over 100, 000 new breast cancer patients are estimated to be diagnosed annually in India.[5,6] Breast cancer is the commonest cancer in urban Indian females, and the second commonest in the rural Indian women.[7] India is is a country with wide ethnic, cultural, religious, and economic diversity and variation in the health care infrastructure. The health care facility pattern is diverse, where the benefits of the awareness, early diagnosis and treatment programs is still not available in many regions.[8] Breast cancer is observed to be highest in the Northeast and in cities such as Mumbai and New Delhi.[9] Apart from breast self-examination, mammography screening is now well established and recommended by the World Health Organization. This method is considered to be cost-effective and feasible in countries that have a good health infrastructure.[10]

METHODS AND MATERIAL

The researcher adopted a descriptive research design and the study was conducted on Dec 2012 among 20 unmarried and married women from the village of Badagabettu, Udupi district, Karnataka by using simple random sampling. Tools were developed and sent for validation. Reliability coefficient of knowledge tool was established (r=0.85) by split method using Spearman Brown prophecy formula. Structured risk assessment tool was done using test-re-test method and was found to be r=0.85, it was reliable. Data was collected after getting ethical clearance and written consent from the participants. Collected data were analyzed using the descriptive statistics through SPSS version 16.0.

Table 1: Frequecny and percentage distribution of sample characteristics

[N=20]

Item(s)	*Frequency*	*Percentage (%)*
1. Age (years)		
35-44	11	55
45-54	2	10
55 and above	7	35
2. Marital status		
Married	14	70
Unmarried	3	15
Widow	3	15
3. Religion		
Hindu	18	90
Christian	0	0
Muslim	2	10
4. Education		
Primary	9	45
High school	2	10
Higher Secondary	4	20
PUC	3	15
Graduate	1	5
Post graduate	1	5
5. Occupation		
Government employee	0	0
Private employee	5	25
Self-employee	1	5
Daily wage	1	5
Housewife	13	65
6. Family monthly income in rupees		
Below 3000	5	25
3001-5000	9	45
5001-10,000	4	20
10,001 and above	2	10
7. Heard about breast cancer		
Yes	20	100
No	0	0
7.1. Sources of nformation		
Health care personal	9	45
Family	5	25
Friends	3	15
Mass/Media	3	15

RESULTS

The study findings showed in table 1, majority 55% of women were at the age group of 35- 44 years. Majority 70% are married women and majority 90% belonged to the Hindu religion. Majority 45% had primary education, majority 65% were housewife and majority 45% of their monthly family income is within Rs.3001- 5000. All women 100% have heard about breast cancer and 45% obtained the source of information from the health personnel.

The data presented in figure 1 depicted the level of awareness on breast cancer among the samples. Majority 14 (70%) had moderate knowledge on breast cancer, 6 (30%) had poor knowledge and none (0%) were having good knowledge on breast cancer.

Table 2 depicted that out of the total sample, 30% were aware of mammogram and 70% were not. Those who were aware of mammogram 66.6% know that it is available in nearby hospital, 33.3% does not have any idea whether it is available or not and none knows that it is not available in the nearby hospital. Majority 66.6% got the source of information from health personnel, 33.3% from friends. 100% of sample have not utilize the mammogram in their life and 66.6% believe that mammogram can detect breast cancer at the earliest and 33.3% does not belief that mammogram can detect breast cancer at the earliest.

Table 3 shows the risk factors for breast cancer among women aged 35 years and above who participated during the study. About 15% women had menarche at the age of ≤ 12 years, 60% between the age group of 13-15 years

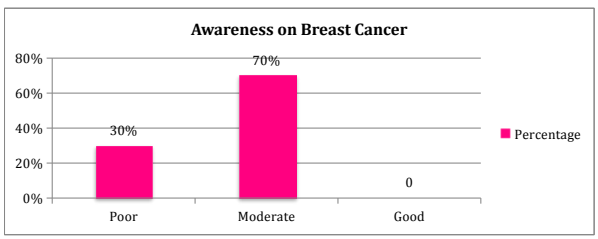

Figure 1: Bar diagram representing the level of awareness on Breast cancer

Table 2: Frequency & Percentage distribution on utilization of mammogram

N=20, n=6

Utilization of mammogram	*Frequency*	*Percentage (%)*
1. Aware of mammogram		
Yes	6	30
No	14	70
2. Available nearby hospital		
Yes	4	66.6
No	0	0
Not known	2	33.3
3. Source of information		
Friends	2	33.3
Relatives	0	0
Neighbours	0	0
Health personnel	4	66.6
Mass media	0	0
4. Undergone mammogram		
Yes	0	0
No	6	100
5. Belief in mammogram		
Yes	4	66.6
No	2	33.3

and 25% had menarche at the age of ≥16 years. 100% women do not have the history of breast cancer and 95% women do not have the history of any first degree relatives – mother, sisters and daughter with breast cancer and 5% have the history of having sister diagnosed with breast cancer. There were 50% of women who first had their delivery at the age of ≥25 years and above, 35% delivered at the age of ≤ 25 years and 15% did not deliver till now. After the delivery 65% continue to breast feed their chid till 1-2 years, 5% breast feed within 1 year and 30% women did not breast feed. There were only 5% women who had the history of breast biopsy and 95% has no history of breast biopsy. 10% had the history of taking oral contraceptives within 5 years period and 90% of them had no history of taking oral contraceptives. 100% women who

Table 3: Frequency and percentage distribution of risk factors for breast cancer among 20 women:

[N=20]

Risk factor	*Frequency*	*Percentage(%)*
Age at menarche (years)		
A. ≤ 12	3	15
B. 13 – 15	12	60
C. ≥16	5	25
The woman have a medical history of any breast cancer		
None	20	100
One breast affected	0	0
Both breast affected	0	0
The woman's have the history of any first degree relatives – mother, sisters and daughter with breast cancer		
None	19	95
One	1	5
Two	0	0
Age at first full term delivery (years)		
< 25	7	35
≥ 25	10	50
None	3	15
Total duration of breast feeding (years)		
Absent	6	30
< 1	1	5
1-2	13	65
The woman ever had a breast biopsy		
Absent	19	95
1	1	5
> 1	0	0
Used of oral contraceptives (years)		
None	18	90
≤ 5	2	10
> 5	0	0
The woman consumed alcohol(drink of 24g) in a day		
None	20	100
< 2	0	0
≥ 2	0	0

participated in the study did not have the history of taking alcohol in their life.

DISCUSSION

Women more commonly believed that unhealthy habits related to alcohol and tobacco consumption were more important risk factors than reproductive history, which is a much stronger determinant of breast cancer.[11,12,13] Studies shows that 15-21% are aware that strongest risk factors of breast cancer are related to age at menarche and age at menopause.[14,15] Further, 13–58% are aware that family history as a risk factor for breast cancer.[16] Age at birth of first child and that of breast feeding were considered to be risk factors by 8–83% and 17–88% of the women, respectively.[17] Tobacco smoking was reported to be a risk factor in 20–74% of women. No studies report on the literacy levels on number of children as a risk factor. 11%-51% considered obesity and overweight to be risk factors.[18,19] In India, the media publicity and policy efforts on cancer have primarily focused on the reduction of tobacco use.[20] There has been little discussion of other important risk factors such as alcohol, reproductive history and overweight.[21] Indian women need to be aware of both modifiable and non-modifiable risk factors for breast cancer to adopt appropriate practices for prevention.[22] With wide variations in the

state-level burden, a coordinated, intensive health promotion intervention programme on risk factors, prevention, screening and management for breast cancer is prudent. Training on the latest evidence regarding breast cancer risk factors should be offered to healthcare providers and community workers to raise their cancer literacy so they can disseminate the knowledge to the society. Continuing medical education programmes with enhanced emphasis on breast cancer in the nursing curriculum at institutional level and other healthcare training institutions should be a priority for women's health in the country.[23]

CONCLUSION

Indian women need to be aware of the risk factors for breast cancer, so as to be able to adopt appropriate practices measures for prevention. There is a need for more programs on screening test and preventive assessment awareness community-level organizations and the health system. It is necessary to provide support for breast cancer management as well as for screening and rehabilitation so to help in the early stage cancers diagnosis and timely treatment. This will result in improving survival and quality of life among the Indian breast cancer patients.

Acknowledgement: The author would like to thank the participants and everyone involved in the study.

Conflict of interest: None

Funding : None

REFERENCES

1. Ferlay J, Soerjomataram I, Dikshit R, et al. Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. Int J Cancer. 2015;136:359–86.
2. Jemal A, Bray F, Center MM, et al. Global cancer statistics. CA Cancer J Clin. 2011;61:69–90.
3. Kimman M, Norman R, Jan S, et al. The burden of cancer in member countries of the Association of Southeast Asian Nations (ASEAN) Asian Pac J Cancer Prev. 2012;13:411–20.
4. TS. Tang, LJ. Solomon, McCracken. Cultural barriers to mammography, clinical breast exam, and breast self-exam among Chinese-American women 60 and older. Preventive Medicine. 2000 Nov; 31(5): 575 - 83.
5. Fitzmaurice C, Dicker D, Pain A, Hamavid H, et al. (2015) The global burden of cancer 2013. JAMA Oncol 1(4): 505-527.
6. Jones S, Johnson K.Women's awareness of cancer symptoms: a review of the literature. Women's Health. 2012; 8(5): 579-591.
7. National Cancer Registry Program. Ten year consolidated report of the Hospital Based Cancer Registries, 1984–1993, an assessment of the burden and care of cancer patients.New Delhi: Indian Council of Medical Research; 2001.
8. National Cancer Registry Programme. National Centre for Disease Informatics and Research. and Indian Council of Medical Research., Three year report of population based cancer registries 2009–2011 national cancer registry programme. National Cancer Registry, 2013.
9. National Cancer Registry Programme. National Centre for Disease Informatics and Research. and Indian Council of Medical Research., Three year report of population based cancer registries 2009–2011 national cancer registry programme. National Cancer Registry, 2013.
10. Krishnan S, Sivaram S, Anderson BO, Basu P, Belinson JL, Bhatla N. Using implementation science to advance cancer prevention in India. Asian Pac J Cancer Prev. 2015; 16(9):3639–3644.
11. Xue F, Willett WC, Rosner BA. Cigarette smoking and the incidence of breast cancer. Arch Int Med. 2011; 171(2):125–133.
12. Gaudet M, Gapstur SM, Sun J. Active smoking and breast cancer risk: original cohort data and meta-analysis. J Natl Cancer Inst. 2013; 105(8):515–525.
13. Bagnardi V, Rota M, Botteri E. Light alcohol drinking and cancer: a meta-analysis. Ann Oncol. 2012; 24(2):301–308.
14. Bala D, Gameti H. An educational intervention study of breast self-examination (BSE) in 250 women beneficiaries of urban health centers of west Zone of Ahmedabad. Healthline 2011; 2(2).
15. Ahuja S, Chakrabarti N. To determine the level of knowledge regarding breast cancer and to increase awareness about breast cancer screening practices among a group of women in a Tertiary Care Hospital in Mumbai, India. Internet Public Health 2009;1(1).
16. Sharma P, Ganguly E, Nagda D, Kamaraju T. Knowledge, attitude and preventive practices of

South Indian women towards breast cancer. Health Agenda 2013;1(1):16.

17. Puri S, Mangat C, Bhatia V, Kalia M, Sehgal A, Kaur A. Awareness of risk factors and aspects of breast cancer among North Indian women. Internet J Health 2008;8(2).
18. Somdatta P, Baridalyne N. Awareness of breast cancer in women of an urban resettlement colony. Indian J Cancer 2008;45(4).
19. Garg P, Bansal M, Garg M, Arora B. Creating awareness about the painless nature of early breast cancer lump is important in low-income countries. Breast J 2010;16(1):101–2.
20. Ministry of Health and Family Welfare, Government of India Annual Report 2009–2010, in The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, (2003) and Related Rules & Regulations; 2003
21. Raj S, Piang LK, Nair KS, Tiwari VK, Kaur H, Singh B. Awareness regarding risk factors, symptoms and treatment facilities for cancer in selected states of India. Asian Pac J Cancer Prev. 2012;13(8):4057–4062.
22. Krishnan S, Sivaram S, Anderson BO, Basu P, Belinson JL, Bhatla N. Using implementation science to advance cancer prevention in India. Asian Pac J Cancer Prev. 2015;16(9):3639–3644.
23. Gupta A, Shridhar K, Dhillon PK. A review of breast cancer awareness among women in India: Cancer literate or awareness deficit. Eur J Cancer. 2015;51(14):2058-2066.