Assessment Of Knowledge, Attitude And Practice Towards Breast Self Examination Among Female Healthcare Workers In Nelamangala Taluk

Kavitha M[1], Jyothi Jadhav[2], Vishwanatha[3], Ranganath TS[4]

1.MBBS, Postgraduate Student, 2.MD, PGDHHM, Associate Professor, 3.MD, Professor, 4.MSc,Statistician, Department of Community Medicine, Bangalore Medical College and Research Institute, Bengaluru- 560002

ABSTRACT

BACKGROUND: Breast cancer is the most common cancer in women worldwide. It accounts for 27% of all cancer cases among women in India.In developing countries, the majority of cases arediagnosed in the later stages which are difficult to treat. Breast self-examination is one of the most important methods in the early detection of Breast cancer.

OBJECTIVE: To assess the knowledge, attitude and practice regarding breast self-examination among female healthcare workers of Nelamangala Taluk.

METHODS: A cross sectional study was carried out between August to November 2016among 123 healthcare workers from Nelemangala Taluk to assess their level of knowledge, attitude and practice of BSE. A multi-stage random sampling technique was used and each respondent was given a pre-tested semi-structured self-administered questionnaire.

RESULTS: All the healthcare workers interviewed had heard about BSE, 95(77.25%)of them knew that BSE helps in early detection of breast cancer but only 66 (53.65%)of them knew how to do BSE and only 28(22.8%) of them were performing BSE regularly. Seventy eight (63.5%)healthcare workers were not practicing BSE as a majority40 (32.52%) of them did not know how to do the BSE.

CONCLUSION: The study showed that knowledge and practice of BSE among healthcare workers was inadequate. There is a need for awareness programs to educate healthcare workers about BSE as it helps in the early detection of breast cancer.

KEYWORDS: Healthcare workers, Breast self-examination, Knowledge, Attitude.

Introduction

Breast cancer is the most common cancer in women worldwide. It accounts for 27% of all cancer cases among women in India. During the year 2012 in India, 144,937 women were newly detected with breast cancer and 70,218 died of breast cancer. So roughly, in India, for every 2 women newly diagnosed with breast cancer, one ends up succumbing to the condition (1).The incidence is increasing in the developing world due to increase in life expectancy, urbanization and adaptation of western lifestyle (2). Breast cancer is distinguished from other types of cancer by the fact that it occurs in a visible organ and can be detected and treated at an early stage (3).

Corresponding Author :
Dr. Jyothi Jadhav MD,PGDHHM
Associate Professor, Department of Community Medicine, Bangalore Medical College & Research Institute. Fort Road, Bengaluru - 560002.
E-Mail: drjyothijadhav28@gmail.com

Recommended preventive techniques to reduce breast cancer mortality and morbidity include breast self-examination (BSE), clinical breast examination (CBE), and mammography (4). CBE and mammography require hospital visit and specialized equipment and expertise whereas BSE is an inexpensive tool that can be carried out by women themselves at their convenience (5). BSE beneÿts women in two ways: women become familiar with both the appearance and the feel of their breast and can detect any changes in their breasts as early as possible (6). Forty percent of diagnosed breast cancers are detected by women who feel a lump upon self-examination; hence, conducting a regular breast self-exam is very important (7). Healthcare workers are the one who provide information to general public for the improvement of knowledge and attitude and can motivate females in the community to comply with recommended breast cancer screening practices. Throughout the world, healthcare workers have been identiÿed to be important components in cancer

prevention programmes while gaps have been identiÿed and recommendations made for improvement (8).

Very few studies have been conducted in India among women to study awareness and compliance with breast-self-examination.Hence, this study attempts to assess the level of knowledge, attitude, and practice regarding self-breast examination among healthcare workers in Nelamangala, Taluk Bengaluru.

Materials And Methods

Sample Size Estimation: A pilot study was conducted to estimate the sample size. Out of 10 PHCs, 3 PHCs were selected randomly and the data was collected by administering asemi- structured questionnaire to all the 30 healthcare workers who were present during the visit. Upon data analysis, we found that 76.6% of the workers knew that monthly BSE is necessary. With 10% relative precision, the sample size was calculated by using the formula $4pq/d^2$. The sample size arrived at was 122.3 and was rounded off to 123.

Sampling Method: The sampling method employed was multi-stage random sampling. There are10 PHCs under Nelamangala Taluk and the total staff were 279. Out of 10 PHCs, 5 PHCs were selected randomly (apart from the 3 PHCs taken for pilot study) and healthcare workers were selected by probability proportion to size to achieve the sample size of 123.

Data Collection Technique: The study data was collected from 123 healthcare workers from these selected 5 PHCs of Nelamangala Taluk using the pre-tested semi-structured self-administered questionnaire (9). Data was collected from those workers who were present during the visit. The questionnaire consisted of both close ended and multiple choice questions regarding knowledge, attitude (by using a 3-point Likert Scale) and practice of BSE.

Data Analysis: Fully completed questionnaires were collected and the data was entered in MS Excel. Data was analysed to generated escriptive statistics. The results are presented in the form of tables and graphs as appropriate.

Results

Majority of the respondents (47.15%) belonged to the age group of 31-40 years. 120(97.56%) of them belonged to the Hindu religion and 68(57.39%) of them had completed their high school education. Out of 123 respondents, 22 (17.88%) were health assistants (HA), 49(39.83%) were ASHA workers and 52(42.28%) were Anganawadi workers (AWW). (Table 1)

Table 1. Socio-demographic profile of the participants

VARIABLES	N=123(%)
AGE	
21-30	21(17.07%)
31-40	**58(47.15%)**
41-50	28(22.76%)
51-60	16(13.01%)
RELIGION	
HINDU	**120(97.56%)**
MUSLIM	3(2.44%)
EDUCATION	
HIGH school	**68(57.39%)**
PUC/diploma	37(30.43%)
Graduate	15(9.56%)
Professionals	3(2.60%)
DESIGNATION	
Health assistants	22(17.88%)
ASHA	49(39.8374)
AWW	52(42.27642)

Out of the 123 participants, 112 (91.05%) had heard about breast cancer while 95 (77.25%) were aware that BSE helps in early detection of breast cancer. (Table 2)

Table 2. Knowledge of the participants about breast cancer.

SN	QUESTIONS	YES	%
1	HEARD ABOUT BREAST CANCER	112	91.05%
2	COMMON CANCER IN INDIA	99	80.48%
3	BSE HELPS IN EARLY DETECTION	**95**	**77.25%**
4	EARLY DIAGNOSIS HAS GOOD PROGNOSIS	98	79.67%

The knowledge regarding the risk factors of breast cancer was poor; however, the knowledge that breastfeeding reduces the risk of breast cancer was known to 73.13% of them. (Table 3)

Table 3. Knowledge of the participants about risk factors for breast cancer.

SN	RISK FACTORS OF BREAST CANCER	YES	NUMBER (%)
1	HEREDITARY	21	17.07%
2	BREAST FEEDING DECREASES THE RISK	90	73.17%
3	OBESITY INCREASES THE RISK	30	24.39%
4	LATE PREGNANCY INCREASES THE RISK	37	30.08%
5	NULLIPARITY INCREASES THE RISK	28	22.76%

Among the 123 participants, all of them (100%) had heard about BSE and the source of information for a majority (43.9%) of them was training programs.77 (66.60%) of them knew that it is necessary to do the self-examination every month; however, only 66 (53.65%) of them knew how to perform BSE. (Table 4)

Table 4. Knowledge of the participants about Breast Self Examination.

SN	QUESTIONS	YES	%
1	HEARD ABOUT BREAST SELF EXAMINATION	123	100%
2	SOURCE OF INFORMATION		
	a) TRAINING PROGRAM	54	43.9%
	b) MEDIA	12	9.7%
	c) SCREENING PROGRAM	28	22.8%
	d) Others*	29	23.6%
2	NECESSARY TO DO EVERY MONTH	**77**	66.60%
3	KNOW HOW TO DO BSE	66	53.65%

*Others – Friends, colleague, family members.

113 (91.8%) respondents had a positive attitude towards BSE and stated that it is necessary, 45 (36.5%) of them had done BSE before and among them 22 (17.88%) of them to examine their breasts regularly. 78 (63.4%) of them had not done BSE earlier because a majority of them (32.52%) did not know how to perform a BSE. 10 respondents (8.1%) had the attitude to not develop breast cancer in future while 58 (47.15%) opined that BSE is embarrassing and 59 (47.97%) of them stated that it is a good practice. (Table 5)

Table 5. Attitude of the participants Towards Breast Self Examination

QUESTIONS	NUMBER (%
BSE is necessary *	
Agree	68(55.3%)
Strongly agree	45 (36.6%)
Disagree	10(0.8%)
Have you done BSE before	
If yes, why?	45(36.5%)
I might have breast cancer in the future	12 (9.7%)
To examine my breast regularly	22 (17.8%)
Doctors' advice	11(8.9%)
Because of alarming symptoms	02(1.6%)
If no, why?	78(63.4%)
I don't know how to do	40(32.52%)
I don't have any symptoms	26(21.13%)
I am scared of being diagnosed with breast cancer	2(1.62%)
I can never have breast cancer	10(8.1%)
What is your opinion on BSE?	
Embarrassing	58(47.1%)
Painful	6(4.8%)
Good practice	59(47.9%)
Whom do you inform when u suspect breast cancer	
a)Friends/ relatives	16(13%)
b)Doctor	71(57.7%)
c) a and b	16(13%)

***Three- Point Likert Scale**

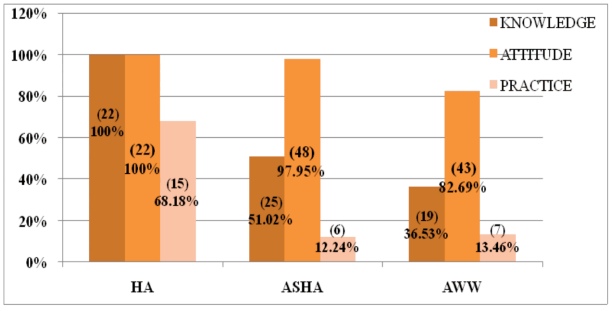
Even though 45 (36.5%) of them had practiced BSEonly 28 (22.76%) of them were practicing BSE every month and a majority 20 (16.2%) of them were performing it within 5 days after menstruation each month. Out of the total 123 healthcare workers only 62 (50.40%) had advised the community regarding the practice of BSE. (table 6)

Table 6. Practice of BSE among the study participants.

QUESTIONS	NUMBER (%)
Do you regularly (every month) perform BSE?	
YES	**28(22%)**
When do you normally perform BSE?	
A regular day of each month	4(3.2%)
Within 5 days after menstruation	**20(16.26%)**
Not on a regular day of each month	4(3.2%)
Have you had a breast examination in the last 3 years	
Yes	55(44.7%)
Have you advised BSE to others	**62(50.4%)**

All the healthcare workers had heard of BSE. Out of 22 HA, all of them knew the method of performing the BSE and had a positive attitude towards it but only 15 (68.18%) of them were practicing it. Out of 49 ASHA workers, 25 (51.02%) had the knowledge, 48 (97.95%) had positive attitude but only 6 (12.24%) were practising it. Out of 52 AWW, 19 (36.53%) had the knowledge, 43 (82.69%) had good attitude but only 7 (13.46%) were practicing it. (Figure 1)

Figure 1. Comparison Of Knowledge, Attitude And Practice Of BSE Among Different Categories Of Healthcare Workers.



Discussion

Breast cancer is the most common type of cancer affecting women worldwide and is prevalence is increasing particularly in developing countries where the majority of cases are diagnosed in late stages. The low survival rates in less developed countries can be explained mainly due to the lack of early detection programs resulting in a high proportion of women presenting with late-stage disease, as well as by the lack of adequate diagnosis and treatment facilities (2).

Very few studies have been conducted in India related to breast self-examination among healthcare workers. Due to the lack of an international standardized questionnaire on KAP of BSE, the questionnaire used in this study has been obtained from a study done by Sujindra and Elamurugan (2015) on knowledge, attitude, and practice of breast self-examination among female nursing students (9).

In this study, it is found that 112 (91.05%)of the study subjects had heard of breast cancer whereas in the study conducted by Sujindra and Elamurugan, 2015 (9), it was reported that all of them (100%) had heard of breast cancer, 99 (80.48%) of them knew that it is common in India which was consistent with the study done by Sujindra and Elamurugan, (2015). Here, 95 (77.25%) were aware that BSE helps in early detection of breast cancer while the earlier study had reported 89.2% of participants having awareness. Knowledge regarding the prognosis was good in our study which reported that 98 (79.67%) of them knew that early diagnosis had a good prognosis. Knowledge regarding risk factors of breast cancer was poor. However, the knowledge that breast feeding reduces the risk of breast cancer was high at 73.17%.

A majority (91.8%) of them had a positive attitude towards BSE and is in line with that reported by Sujindra and Elamurugan, 2015 who had reported it at 93.3%. In our study,36.5% of them had done BSE earlier out of which 17.8% examined their breasts regularly. Performing SE out of fear of developing breast cancer was found to be true among 9.7% in this study compared to 84.4% in the study done by Sujindra and Elamurugan, 2015.Inspite of having good knowledge about it, 47.1% of them stated that it was embarrassing to perform it; however, the study by Sujindra and Elamurugan, 2015, had reported this at 5%. However, 47.9% of them had a positive opinion about BSE stating that it is a good practice. Among out respondents, 63.4% had not performed a BSE earlier and a majority of them (51.3%) did not know how to perform a BSE.

In this study, 22% of them were performing BSE regularly each month and 16.26% of them were performing it within 5 days after menstruation. However, in the study by Sujindra and Elamurugan, 2015, 33.3% of them were practicing regularly and 63.3% of them were performing it on any day of the month. Almost half of the healthcare workers (50.4%)had advised others to perform BSE.

Conclusion

BSE is one of the most effective preventive health behaviour for the early detection of breast cancer. In our study, a majority of the healthcare workers had a positive attitude towards BSE; however, their

knowledge and practice have to be improved among ASHAs and AWWs by providing them training programs. Healthcare workers, being health advisers,need to be educated about breast cancer, BSE and other early detection methods so that cancer burden and late presentation of patients can be reduced with the corresponding improvement in outcome and survival.Evidence says that women who correctly practice BSE monthly are more likely to detect a lump in the early stage of itsdevelopment, and early diagnosis has been reported to inÃuence early treatment to yield a better survival rate (5).

Limitations

The study was conducted among a small sample of healthcare workers and we could not possibly include all healthcare workers from the given geographical area.

Acknowledgements

We would like to thank the Director cum Dean, Bangalore Medical College & Research Institute for the support and providing the authors this opportunity. We are thankful for the support provided by all the faculty, statisticians and post-graduates from the Department of Community Medicine, Bangalore Medical College & Research Institute, Bengaluru. Most importantly, we are thankful to all the study subjects for their cooperation without whom, this study would not have been possible.

References

1. Breast Cancer India. Statistics of Breast Cancer in India. Global Comparison; 2012[cited 2016 Dec 30]. Available from: http://www.breastcancer india.net/statistics/stat_global.html
2. World Health Organization. Cancer: Breast cancer: prevention and control[Cited 2017 Jan 2]. Available from:http://www.who.int /cancer/ detection/breastcancer/en/
3. Doshi D, Kulkarni S, Reddy B, Karunakar P. Breast self-examination: Knowledge, attitude, and practice among female dental students in Hyderabad city, India. Indian J Palliat Care [Internet]. 2012 Jan [cited 2017 Jan 4]; 18(1): 68-73. Available from:https://www.ncbi.nlm.nih.gov/ pubmed/22837614
4. Humphrey LL, Helfand M, Chan BK, Woolf SH. Breast cancer screening: a summary of the evidence for the U.S. Preventive Services Task Force. Ann Intern Med [Internet].2002 Sep [cited 2016 Dec 10]; 137(5): 347-60. Available from: https://www.ncbi.nlm.nih. gov/pubmed/12204020
5. Okobia MN, Bunker CH, Okonofua FE, Osime U. Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross-sectional study. World J SurgOncol [Internet].2006 Feb [cited 2016 Dec 12]; 4(11). Available from:https://www.ncbi. nlm.nih.gov/pmc/articles/ PMC1397833/
6. Karayurt O, Ozmen D, Cetinkaya AC.Awareness of breast cancer risk factors and practice of breast self examination among high school students in Turkey. BMC Public Health [internet]. 2008 [cited 2016 Jan 15]; 17(8):359. Available from: https://www. ncbi.nlm.nih.gov/pubmed/18928520
7. National Breast Cancer Foundation, INC. Breast Cancer: symptoms and signs; 2016 [cited 2017 Dec 5]. Available from: http://www.national breastcancer.org/breast-cancer-symptoms-and-signs
8. Nilaweera RIW, Perera S, Paranagama N, AnushyanthanAS.Knowledge and Practices on Breast and Cervical Cancer Screening Methods among Female Health Care Workers: A Sri Lankan Experience. Asian Pacific Journal of Cancer Prevention [internet]. 2012 [cited 2017 Jan 26]; 13. Available from: http://apocpcontrol.com/ paper_ file/issue_abs/Volume13_No4/1193-96%202.17%20Nilaweera.pdf
9. Sujindra E, Elamurugan TP. Knowledge, attitude, and practice of breast self-examination in female nursing students. [Internet] 2015 [cited 2017 Jan 6]; 1(2):7174. Available from: http:// www.ijeprjournal. org/article.asp?issn=2395-2296 ;year=2015; volume=1; issue=2;spage=71; epage=74; aulast=Sujindra