Scholars Journal of Applied Medical Sciences (SJAMS)
Abbreviated Key Title: Sch. J. App. Med. Sci.
ISSN 2320-6691 (Online)
ISSN 2347-954X (Print)

A Unit of Scholars Academic and Scientific Society, India
www.saspublishers.com

Community Medicine

A Study on the Effectiveness of a Structured Teaching Programme on Breast Cancer Prevention and Breast Self-Examination among Students in A Nursing College in Eastern India

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Original Research Article

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Article History
Received: 06.03.2018
Accepted: 14.03.2018
Published: 30.03.2018

DOI:
10.36347/sjams.2018.v06i03.034

Abstract: Breast cancer is the most common cancer among women worldwide which can be detected at an early stage through breast self-examination (BSE) and leads to increased chances of survival. It is the cheap and easy method of diagnosis of breast cancer and is an important public health problem as it is associated with high morbidity and mortality.[1]To determines the KAP of nursing students on breast cancer & self-examination before and after a structured teaching programme. To measure the ability of student to perform BSE after structured teaching programme. The study was conducted at GNM school of Nursing at SCBMCH, Cuttack, and Odisha. A total of 100 GNM students are enrolled each year and in the 3 year GNM course a total of 300 students are admitted, out of which 10% students are boys in each year. So a total of 90 girls are admitted. Out of 270 female students in the 3year programme a total of 252 students gave consent to participate in the programme. Pretest revealed that 58.74% students had inadequate knowledge on Breast Cancer and BSE. 117(46.43%) had an unfavourable attitude founds breast cancer patients & for BSE. 40.87% had poor pretest scores and only 67 (26.59%) had good scores. Whereas after the orientation programme 237 students (94.05%) had a good score in practice. Change in the behavior, attitude of the nursing students can be brought about by inclusion of the topic in the study curriculum.
Keywords: Breast cancer, morbidity, breast self-examination (BSE).

INTRODUCTION

Breast cancer has increasingly become an issue of public health importance. Over the past decade there is reduction in the occurrence of various communicable diseases whereas the NCD's are in a rise.

India is not an exemption for this epidemic. Breast cancer patients do not tend to survive for a long time if the cancer is detected in late stage because the tumor size at the time of diagnosis has a significant impact on survival rate even with effective treatment [2].

One potentially important strategy is reducing breast cancer mortality is the use of screening method such as BSE, clinical breast examination, and mammography for each detection [3]. Early detection helps in the initiation of treatment even before metastasis and has excellent proportion. Breast cancer screening was found to reduce the risk of mortality by 20% [4]. Although BSE is not an effective breast cancer screening method, BSE can be used as a measure to improve self-care among women [5]. Raising awareness can also empower women to follow healthy behavior and health promotional activities can also be initiated [6].

METHODOLOGY

Place of study

An institutional based cross sectional study was conducted at GNM School of Nursing at SCBMCH, Cuttack, and a tertiary care hospital in the state of Odisha in eastern India.

Study Subjects

All willing cooperative female students of GNM School Of nursing were included in the study. The 3 year GNM course comprised of a total of 300 students out of which a total of 270 female students were present. In the 3 year academic course, out of 270

female students 252 were willing to cooperate and gave their consent to participate in this programme.

Study Instruments: Predesigned and pretested questionnaire cum schedule

- Demographic data was collected as per schedule.
- The tool comprised of structured questionnaire on breast cancer & BSE.
- Observation checklist for assessing the ability to perform BSE.

Other tools utilized

Structured teaching programme to improve the knowledge, attitude and practice of students on CA Breast, (BSE) breast self-examination, ability to perform BSE, a video depicting the basic conceptual method of performance of BSE for teaching these nursing students. A breast model to show the cross sectional anatomy of the breast was also included in the teaching session. The teaching module was validated by 3 doctors and 2 nurses and it was thus implemented in the students after a pretest so as to use the impact on the students can be assessed by a posttest.

Objectives

- To determine the KAP of the nursing students on breast cancer and on Breast Self-Examination before and after the structured teaching programme.
- To measure the ability of students to perform BSE after structure training programme.
- To find relationship between knowledge and attitude of students on breast cancer and breast self-examination.
- To find the effectiveness of structured teaching programme on students as measured by gain in knowledge, the change in attitude, improved ability on perform breast self-exam.

Schedule cum Questionnaire

A. Source of Information Breast Cancer among the nursing students

Source of Information	No. of Respondents
Television	
Radio	
Newspaper	
Family Member	
Friends	
HWF/AWW/ASHA	
Books	
None of the above.	

B. Information of students on Risk factors on Breast cancer

Knowledge of Risk Factors	No. of Respondents
Increasing age	
Obesity	
H/o. no child birth	
First child birth >30yrs	
Late Menopause >50yrs	
Early Menarche	
Alcohol / tobacco use	
Sedentary life style	
H/o. benign breast disease.	
Radiation exposure	
Hormone replacement therapy	
Positive family history (mother, sister, daughter, aunt)	
Use of brassier	
Unmarried	
Hereditary	
No breast feeding.	

C. Attitude of the students towards breast cancer patients

Feeling for cancer patients	No.
Isolation of the patients	
Allowed to live free in the community	
Curse of the God	
To be supported & home care to be given.	

D. Knowledge about signs and symptoms commonly seen in breast cancer among the students

Sign & Symptoms	No.
Bloody Nipple discharge	
Breast lump	
Dimpling and puckering of skin of breast	
Inversion of nipple.	
Change in the size of breast	
Pain in breast	
Lymph node enlargement in the axillary area	
Abnormal swelling of upper arm	

E. Knowledge & practice of students on BSE

Response
Are you aware about BSE
Yes
No
Frequency of BSE
Daily
Weekly
Monthly
Every 3 months
Every 6 months
Yearly
Do not know
Do you know about the importance of BSE
Yes
No
Ever performed BSE
Yes
No
If yes how often
Regular
Irregular
If No, reasons for nonperformance
Anxiety for discovering mass
No time
No breast related complaints.
Time of performance of BSE
Any day of menstrual cycle
5 – 7 days of menstrual cycle
Every day of menstrual cycle
Whenever one remember
1st day of each month
Have you undergone training on BSE
Yes
No

RESULTS

Table-1: Demographic Characteristics of Participating Female Students

Age (Yrs) n=252	Frequency (n)	Percentage (%)
17-18	12	4.76
19-20	56	22.22
21-22	86	34.13
23-24	34	13.49
25 and above	64	25.54
Religion		
Hindu	234	92.86
Christian	18	7.14
Muslim	0	0
Marital Status		
Single	242	96.03
Married	10	3.97

Table-2: Awareness of Breast Cancer among Female Students

Response	Frequency	%
Aware	248	98.41
Not Aware	4	1.59
Total	252	100

Table-3: Frequency and Percentage distribution of pre and posttest knowledge, attitude and practice score of respondents on breast cancer and BSE

Source		Pretest (n=252)		Post Test (n=252)	
Knowledge Domain	Adequate	56	22.22	213	84.52
	Average	48	19.04	28	11.11
	Inadequate	148	58.74	11	4.37
Attitude Domain	Favorable	79	31.35	135	53.57
	Moderately Favorable	56	22.22	88	34.92
	Un-favorable	117	46.43	29	11.51
Psychomotor / practice domain	Good	67	26.59	237	94.05
	Average	82	32.54	15	5.95
	Poor	103	40.87	0	0

Table-4: Actual gain in knowledge, attitude & practice scores of the Respondents

Attributes/domain	Pretest Mean %	Post Test Mean %	Actual Gain Score	Possible Gain
Knowledge	57.52	96.51	51.01	48.99
Attitude	39.62	86.32	46.70	53.30
Practice	18.69	89.92	71.23	28.77

Table-5: Comparative Analysis between Pretest and Posttest – knowledge, attitude and practice score of subjects

Domain / Attitude	Max score the can be secured	Test	Mean	Median	Range	SD
Knowledge	30	Pre test	8.6	8.9	4-16	3.69
		Post test	27.8	29.4	26-30	8.12
Attitude	15	Pre test	3.6	4	2-10	3.92
		Post test	9.9	1	5-12	7.44
Practice	20	Pre test	4.2	5	2-12	2.71
		Post test	17.9	19	14-20	5.34

DISCUSSIONS

The frequency and % distribution of different demographic variables of the nursing students revealed the following.

The mean age was 22.54±SD 0.943yrs. Out of 252 girls, 4(1.59%) girls were not aware about cancer breast and about 10 (3.97%) girls were married and 92.86% of the girls were Hindu by religion.

Table no. 3 depicts the pretest knowledge. Only 56(22.22%) of the nursing students had adequate knowledge about breast cancer and BSE followed by 48 (19.04%) having average knowledge and 148 (58.74%) having inadequate knowledge.

The posttest knowledge was adequate in majority of nursing students i.e. in 213 (84.52%) followed by average knowledge in 28(11.11%) and inadequate knowledge in 11(4.37%)

Similarly, in regard to attitude for breast cancer patients & BSE, the pretest revealed that 117(46.43%) students had an unfavorable attitude followed by 56(22.22%) students having moderately favorable and 79 (31.35%) having a favorable attitude. According to the post test analysis more than half of the students i.e. 135 (53.57%) had favorable attitude followed by 34.92% having moderately favorable and 11.51% having an unfavorable attitude towards the breast cancer patients.

When analyzed for psychomotor skill domain the pretest revealed that 103 (40.87%) of students had poor scores followed by 82 (32.54%) had average scores and only 67 (26.59%) of students had good scores. Regarding posttest analysis of the psychomotor skills, a very good number i.e. 237 students (94.05%) had good score followed by average score in 15(5.95%) of students.

Gwarzo *et al*. [7] revealed in his study that out of 221 female students, about 87.5% at Nigeria had heard of BSE and from among which 19% were performing the examination monthly. Similarly in another study, by Obaji NC *et al*. [8] the participant's level of awareness of breast cancer was significantly high (77.7%).

In another study by Kumarswamy *et al*. [9] the level of knowledge and practice of BSE among female was unacceptably low i.e. only 26% of the women were aware about BSE and only 18% had ever checked their breast and 5% practiced it regularly.

Suleman *et al*.[10] in this study found that out of 435 students majority i.e. 78.2% did not agree that breast cancer patients should be isolated or stigmatized and 308 (70.8%) did not believe that the disease was punishment of God. In the same study with regard to BSE, only 152 (34.9%) were aware that BSE was method of early detection of CA breast.

Table 4 revealed the overall pretest mean score of knowledge was 57.52 % whereas post test score was 95.51 %. Pretest attitude mean score was 39.62% and posttest mean was 86.32 % and pretest practice mean score was 18.69 % and posttest was 89.92 %.

Actual gain in the pretest & posttest knowledge, attitude & practice score was calculated to assess the effectiveness of the teaching programmer. It revealed that there was significant actual gain in knowledge and practice scores so it was a positive indicator of the effectiveness of the structured teaching programmer.

Table 5 depicts the level of knowledge, attitude and practice gained by the students. It can be concluded that there was a significant gain in knowledge, attitude & practice after the students underwent a structured teaching programmer.

Faiza *et al*.[11] in his study on knowledge on risk factor for CA breast among nurses in teaching hospitals at Karachi revealed that 35% had good knowledge, 40% had fair knowledge and 25% had poor knowledge.

CONCLUSION

The level of knowledge of breast cancer and its risk factors is low among nursing students. Structured orientation programmer may be included in the nursing curriculum highlighting different screening methods like BSE and clinical examination of breast. Time has come to for the nurse to disseminate knowledge efficiently and appropriately within the general population. Nurses who are an important member of the health care team should be educated on breast cancer to encourage development of the health promoting behavior. Furthermore, knowledge which is gained by them should be translated into practice and this can further be transmitted to general population where access to the information skill remains a challenge.

REFERENCES

1. Maurer F. A peer education model for teaching breast self-examination to undergraduate college women. Cancer Nurs 1997; 20: 49-61.
2. Saadatmand S, Bretveld R, Siesling S, Tilanus-Linthorst MM. Influence of tumour stage at breast cancer detection on survival in modern times: population based study in 173 797 patients. Bmj. 2015 Oct 6;351:h4901.
3. Myers ER, Moorman P, Gierisch JM, Havrilesky LJ, Griman LJ, Ghate S .Benefits and harm of breast cancer screening. A systematic review: JAMA 2015: 314: 1615 – 34.
4. Shapiro S, Coleman EA, Broeders M, Codd M, de Koning H, Fracheboud J, Moss S, Paci E, Stachenko S, Ballard-Barbash R, International Breast Cancer Saeeriing Network (IBSN). Breast cancer screening programmes in 22 countries: current policies, administration and guidelines. International journal of epidemiology. 1998 Oct 1;27(5):735-42.

5. Ellman R, Moss SM, Coleman D, Chamberlain J. Breast self-examination programmes in the trial of early detection of breast cancer: ten year findings. British journal of cancer. 1993 Jul;68(1):208.
6. Jirojwong S, MacLennan R. Health beliefs, perceived self-efficacy, and breast self-examination among Thai migrants in Brisbane. Journal of Advanced Nursing. 2003 Feb 1;41(3):241-9.
7. Gwarzo UD, Sabitri R, Idris SH. Knowledge and practice of BSE among female UG students of Admadu Bello University Zaria, North Western Nigeria; Anals of African Medicine; 2009; Vol 8; Issue – 1; 55-58.
8. Obaji NC, Elom HA, Agwu UM, Nwigwe CG, Ezeonu PO, Umeora OU. Awareness and Practice of Breast Self. Examination among Market Women in Abakaliki, South East Nigeria. Annals of medical and health sciences research. 2013;3(1):7-12.
9. Kumarasamy H, Veerakumar AM, Subhathra S, Suga Y, Murugaraj R. Determinants of awareness and practice of breast self-examination among rural women in Trichy, Tamil Nadu. Journal of mid-life health. 2017 Apr;8(2):84.
10. Suleiman AK. Awareness and attitudes regarding breast cancer and breast self-examination among female Jordanian students. Journal of basic and clinical pharmacy. 2014 Jun;5(3):74.
11. Ahmed F, Mahmud S, Hatcher J, Khan SM. Breast cancer risk factor knowledge among nurses in teaching hospitals of Karachi, Pakistan: a cross-sectional study. BMC nursing. 2006 Dec;5(1):6.