Research Article

Efficacy of breast Lump Examination Orientation Module (BLOM) To Aware Women in the WardhaDistrict

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Abstract: Day by day the prevalence of Breast Cancer is increasing. Early diagnosis and intervention is best solution for this. Due to unaware about the knowledge for early diagnosis techniques like breast self-examination (BSE) many women miss out on early detection and treatment opportunities. So to orient them about the process of examination the module is prepared. –To evaluate the efficacy of Breast Lump Examination Orientation Module (BLOM) to aware women in Wardha district this study was undertaken. Randomly the females in between age group 15 to 50 years were selected for the study. After taking their informed consent they were oriented regarding the technique of self-breast examination through the BLOM module.–A structured and validated questionnaire was prepared for Pre & post test. The data was analyzed on the basis of learning gain. The feedback on five point liker scale was also analysed. The absolute learning gain was found to be 65.29.:It was concluded that the module is significantly efficient to orient women regarding breast lump examination techniques.

Keywords: Breast Lump Examination Orientation Module (BLOM), Breast Cancer, Breast Self-Examination(BSE), Breast Lump, Examination of Breast

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1.   INTRODUCTION

Breast cancer is the commonest malignancy among women globally[1].Epidemiological studies have shown that the global burden of Breast cancer is expected to cross over 2 million by the year 2030 [2].Engagement of health care system to aware society for early detection & primary management is the basic need in present scenario. Breast lump is carcinogenic until it is tested & diagnosed as non carcinogenic[3]. As the literature shows it seems to be an increase in the standardized incidence in Wardha region but not statistically tested. The literature is indicating that an increase of incidence in India as well, the results are in accordance [4]. There is need to educate and make self dependent to do breast self examination for identification of any lump. A breast lump is a small swelling, protuberance, protrusion, or hump in the breast that feels distinct from the surrounding breast tissue. Developed technology has provided many methods for diagnosing breast cancer early in its development stage. However, breast self-examination (BSE) being the most convenient and cheapest method. The mature breast is generally conical in shape, with the base of the breast overlying the pectoralis muscles in the upper chest[5].Clinical breast examination is done and mammography require special visit and self breast examination is done at home. It is an inexpensive tool that can be used by females. The embarrassment of handling the breasts that BSE causes hinders women from talking about their concerns and obtaining advice on how to do the examination effectively[6].Lack of time, lack of confidence in their abilities to properly perform the procedure, and fear of finding a lump and being embarrassed are all reasons why people do not perform self breast examinations. Many methods for diagnosing breast cancer early in its development are now accessible, with breast self-examination being the most convenient (BSE). It is inexpensive, easy, and does not require any specialized equipment or frequent hospital visits, demonstrating its utility in developing countries with limited resources [7].One of the primary methods of detecting a breast lump is breast self-examination, which comprises the woman looking at and touching each breast for any discharge, mass, or lump. The WHO recommends BSE as a valuable tool for reducing breast cancer mortality rates through early identification; particularly, in areas where mammography and routine clinical checking is not available. Despite its obvious benefits, BSE is still used on a very small basis, with varying degrees of frequency in different nations[8]. Women who correctly complete monthly breast self-examination are more likely to find a lump early in its growth, making early detection easier .In locations where mammography and routine clinical examinations are not available, this is especially true. Despite its obvious advantages, BSE is still employed in a limited number of countries, with various degrees of frequency[9]. Creating awareness about self examination of breast we made one module i.e Breast Lump Examination Orientation module (BLOM). Fifth most common cause of cancer death is breast cancer; worldwide 10.4% of cancer comprises breast cancer and second most common type of non skin cancer. Breast cancer is becoming more common all around the world, especially in poorer countries, where it accounts for over 60% of all cancer-related fatalities[10].Breast cancer in women has surpassed lung cancer as the most often diagnosed cancer in women. The leading cause of cancer death due to breast cancer is 6.9%.The shame of handling the breasts that BSE causes hinders women from discussing their concerns and obtaining advice on how to do the operation effectively. As a result, the disease has a high fatality rate since most patients come at later stages of the disease, when treatment choices are restricted[11]. Breast cancer becomes lethal due to late presentation, insufficient resources, a lack of understanding of breast cancer and its detection, symptoms, and prevention, as well as strong traditional beliefs that can delay biomedical therapy[12].This research is especially important since BSE could be an easy way to diagnose breast cancer early. As a result, assessing BSE practice will be more beneficial than relying on a limited diagnostic service. Many women miss out on early detection and treatment opportunities due to a lack of knowledge and awareness about breast cancer. This research is especially important since BSE could be an easy way to diagnose breast cancer early. As a result, assessing BSE practice will be more beneficial than relying on a limited diagnostic service. Breast cancer is most common cancer and fifth most common cancer among all cancer worldwide [13].A survey study at an international level in 23 countries showed that the awareness in young age group is very low as compared to older women. Timely and accurate diagnosis of breast lump and early detection of breast lump can bring down the morbidity and mortality of malignant disease [14].To orient females regarding need & benefits of self breast examination a structured & informative modular program was prepared. The study was planned to test its efficacy to orient women about this. With the aim of Evaluation of Efficacy of Breast Lump Examination Orientation Module (BLOM) to aware women in Wardha districtthe study was planned.

1.1   The specific objectives of the study were

1. To orient females about self breast examination by intervention of a structured module (BLOM).
2. To evaluate efficacy of Breast Lump Examination Orientation Module (BLOM) to aware women in Wardha district
3. To take feedback about Breast Lump Examination Orientation Module (BLOM).

2.   MATERIAL AND METHODS

The study proposal has been approved by ethical committee of MGACH & RC with no – MGACHRC/IEC/2021/06. A module was prepared including all information regarding the knowledge about importance of breast examination, the way of doing examination. The module was prepared with including all audio-visual inputs. This structured module was validated by subject expert. It was entitled as Breast Lump Examination Orientation Module (BLOM).

2.1   Study place

Study was conducted in wardha district

2.2   Study population

All the females above the age of 15 years and below 50 years were selected for the study.

2.3 Study Design

It was interventional quasi-experimental study.The sample selection was done randomly. The females between age 15 years to 50 years were approached through different sources, Janajagaranabhiyan. Their informed verbal consent was taken for participation in the study.

2.4 Inclusion Criteria

1. All the women between 15 to 50 years of age group.
2. The females from wardha district
3. The females who were willing to participate

2.5 Exclusion Criteria

1. The females who were below the age of 15 yrs and above the age of 50 years
2. The females outside Wardha district.
3. Not willng to participate were excluded from study.

2.6 Bais

To reduce bias, participants were chosen at random using a basic random sampling procedure.

2.7 Sample size

Breast cancer is the largest cause of cancer death, accounting for 6.9% of all cancer deaths. As a result, the sample size needed to evaluate the data is computed using the formula N = 4 X p q / L2.Where p equals prevalence, q equals (p-q), and L equals expected error. A total of 100 women were tested before and after the study.
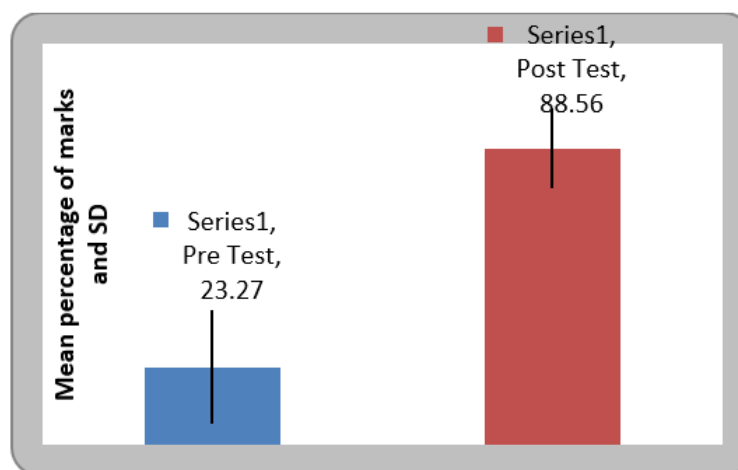
2.8 Methodology

The group of females who were willing to participate in the study were enrolled for intervention. Their knowledge about breast examination was tested by structured and validated Pre test. Then they introduced all the things through BLOM module which was designed to give all information about it. After intervention a post-test was conducted.

3. RESULTS

For statistical analysis, we calculated mean, standard deviation and percentage of 100 females who were participated in study by tables and graphs. The observations are interpreted as follows.

Table 1: Participants Demograph		
Age	**No. of females participated**	**% of participants**
15 yrs to 20 years	07	07 %
21 yrs to 30 years	35	35 %
31 yrs to 40 years	27	27 %
41 yrs to 50 years	31	31 %

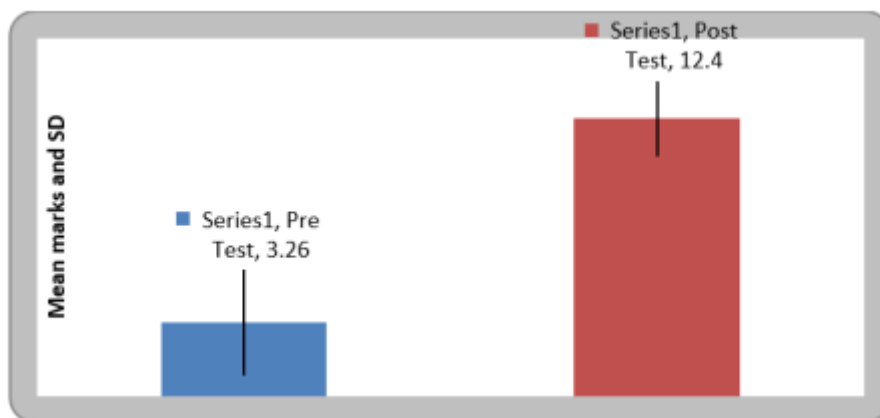| Table 2: Comparison of percentage of marks of female at pre and post test By Student's Paired t-test						
	Test	**Mean**	**N**	**Std. Deviation**	**Std. Error Mean**	**Mean Difference**	**t-value**
Pair	Pre Test	23.27	100	16.97	1.69	65.28±22.03	29.62 P=0.0001,S
	Post Test	88.56	100	11.97	1.19		

The percentage of marks of females in pre test before intervention of BLOM module was 23.27% and the percentage marks of post after explanation of module was 88.56%

Graph 1: Comparison of percentage of average marks female at pre and post test

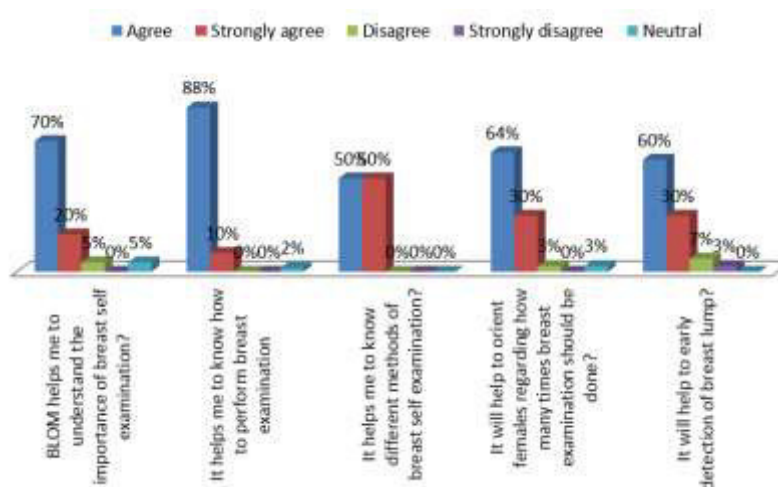| Table 3: Comparison of marks of female at pre and post test by Student's Paired t-test						
	Test	Mean	N	Std. Deviation	Std. Error Mean	Mean Difference	t-value
Pair	Pre Test	3.26	100	2.37	0.23	9.14±3.08	29.63
	Post Test	12.40	100	1.67	0.16		P=0.0001,S

Comparison of pre test&post test marks showed a mean difference of 9.14+_3.08.

Comparison of mean marks and standard deviation of females in pre test is 3.26 and and post test is 12.4.
The feedback of all females was collected on basis of five points liker's scale, analysed & interpreted.

Graph 2: Comparison of marks of female at pre and post test

Table 4: Feedback of females							
SR NO	QUESTIONS	Domain	Agree	Strongly agree	Disagree	Strongly disagree	Neutral
1	BLOM helps me to understand the importance of breast self examination.	Cognitive	70	20	5	0	5
2	It helps me to know how to perform breast examination.	Psychomotor	88	10	0	0	2
3	It helps me to know different methods of breast self examination.	Psychomotor	50	50	0	0	0
4	It helps to orient females regarding how many times breast examination should be done.	Cognitive	64	30	3	0	3
5	It will help for early detection of breast cancer.	Affective	60	30	7	3	0

Graph 3: Feedback of females

The data revealed that among 100 females in wardha district the percentage marks of females in pre test of efficacy of breast lump examination orientation module is 23.27% and the percentage marks of post testafter giving information through module is 88.56% (see graph 1) . The comparison of pre test and post test marks percentage and the mean of pre test is 23.27 and mean of post test is 88.56. The standard deviation is 16.97 of pre test and 11.97 of post test are the significant parameter of study (see table no 1)Comparison of marks of pre and post test By Student's Paired t-test and mean of pre test is 3.26 and mean of post test is 12.40 and standard deviation of pre test if 2.37 and 1.67 of post test is the significant parameter by statistical analysis.(see table no 2) The Comparison of mean marks and standard deviation of females in pre test is 3.26 and post test is 12.4. (See graph no 2)In our study, absolute learning gain and relative learning gain were calculated. Both the scores were significantly high after intervention. The absolute learning gain & relative learning gain of intervention group found to be 65.29&280.57 respectively. We also calculated average normalized gain (g) as a measure of effectiveness of an intervention as suggested by hake (1988) [15].The average normalized gain is categorized as 0.1 to 0.29 as low gain, 0.3 to 0.69 as medium gain and 0.7 to 1.0 as high gain [16]. In our study, we observed the average normalized gain is 0.68.So it is in medium range. The feedbacks were analysed for qualitative assessment regarding the BLOM module. It showed that among 100 females 70%of females were agreed that it helped them to understand the importance of breast self examination 20% of were strongly agreed 5% females were disagreed and 5% females were neutral. (see table no.3 and graph 3)88% of females were agreed for helps to know how to perform breast examination 10% are strongly agree and 2% females are neutral with significant parameter.(see table no 3)50% of females were agree for helps to know different methods of breast self examination and 50% are strongly agree for same.(see table no 3)64% of females were agree for help to orient females regarding how many times breast examination should be done 30% of females are strongly agree 3% are disagree and 3% are neutral.(see table no 3)60% of females were agree that It will help to early detection of breast lump 30 % are strongly agree 7 % females are disagree and 3% females are strongly disagree for same. All these are significant parameter with statistical analysis(see table no3 and graph no 3)

4.   DISCUSSION

This study was done to find out the efficacy of breast lump examination orientation module to aware women in Wardha district. In the UK, breast cancer makes up 34% of all cancers in people aged 50 to 74 and 45% of all cancers in women between the ages of 25 and 49[17]. Although breast cancer is uncommon in younger age groups, it is typically more aggressive and has a worse survival rate in this group [18]. A global study found that university students from 23 different nations had lower knowledge of breast cancer risk factors than older women did [19]. This highlights how crucial it is to raise awareness among young women about not only breast cancer but also any observable breast mass and the screening methods that are available. Early detection of breast lumps using various

techniques is crucial for prevention, as is knowledge of this and attitude toward breast lumps. Mammography is not widely available to the general public, it is to be expected. Very few females aware of this procedure. Inspite of that BSE is inexpensive, accessible, and non-invasive technique. However, our findings indicated that society lacks access to this knowledge. Previous studies by Nilakshika Ranasingheet and researchers from Oluwatosin, O.A., and Oladepo provide evidence for these conclusions [20,21]. So this study we prepared a modular program "BLOM" and introduced females of Wardha District importance of BSE & techniques to do it. It is done on the basis of pre test post test and feedback of 100 females of Wardha district. The study was done out of 100 females who were participated in study were given pre test and after explanation of Breast lump examination module post test was taken and lastly feedback. The pre test&post test were conducted to determine the knowledge gain for the intervention group. There was a significant difference in the pre test and post test scores after intervention. However this study was done to know and aware females regarding the efficacy of breast lump examination orientation module. This study is helpful for women for self breast examination. The embarrassment of handling the breasts that BSE causes hinders women from talking about their concerns and obtaining advice on how to do the examination effectively[6]. The study of 100 females had been taken and these females had given pre test and post test with feedback. Depending on the aim and observation of our research we have found that majority of females don't know about self breast examination in pre test and after explanation of BLOM majority of females were able to understand and perform about self breast lump examination. The cause for this difference is lack of awareness among females for self breast lump examination. There is lack of knowledge about self breast lump examination. Our results revealed that females in pre test had taken low marks than post test. Females performed very well in post test and given good feedback after awareness of breast lump examination orientation module. Among 100 females the percentage marks of females in pre test of efficacy of breast lump examination orientation module are 23.27% and the percentage marks of post test after explanation of module is 88.56%. 88% of females were agreed to perform their self breast lump examination with that 10 % of females were strongly agreed. 70% of females were agreed that BLOM helps them to understand the importance of breast self examination.70%of females were agreed that this module helped them to understand the importance of breast self examination 20% of were strongly agreed with significant parameter. After awareness of females by BLOM 60% of females were agreed that It would helped for early detection of breast lump. 30 % were strongly agreed for same and this significant parameter for research . Considering the prevalence of breast cancer in large population that would amount to many missed cases that could have been avoided by use of improved diagnostic techniques and for early detection BLOM is more beneficial and after study we have found that efficacy of BLOM is good for females. In the BLOM module the clinical examination was shown with parameters like inspection and palpation. These parameters have been shown to improve the early detection of self breast lump examination. Patient

position palpation of breast boundaries examination pattern and techniques are important variables.

5. CONCLUSION

Considering the high risk of breast cancer in future there is a need to aware females in society about Breast self Examination. By knowing its importance in their regular life the females should be motivated to perform it regularly. Breast lump should be considered as malignant till it is not rule out after investigations. As the death rate is high, early detection & treatment is always beneficial. So females should be oriented regarding Breast self examination which is very easy & not expensive to perform. BLOM is the module prepared to give the knowledge to the females regarding this. This module was found effective to orient females about importance of breast self examination and how to perform it.

6. AUTHOR CONTRIBUTION STATEMENT

Shivani Sanjay Ingole and Dr.Pradnya Dandekar contributed to the research's design and implementation, the analysis of the results, and the writing of the manuscript.

7. CONFLICT OF INTEREST

Conflict of interest declared none.

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