Research Article

# Knowledge of breast self-examination in women in Sierra Leone

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## Abstract: Curationis 30(4): 38-44

This research is a follow up of a Breast Week which was organized in Freetown, Sierra Leone. The specific objective of this study was to assess the effectiveness of the knowledge and teachings given to the women who participated in this project. A quantitative approach with an exploratory descriptive design was adopted and an observational checklist guided the data collection process. A sample size of 120 women (10%) who participated in the Breast Week was obtained through systematic sampling. During the Breast Week women were taught how to examine their breasts using breast self-examination (BSE) to detect abnormalities of the breasts. This study was undertaken one year later by the researcher to ascertain whether the information on breast self-examination provided during the Breast Week was being utilised and whether what was taught was being put into use. Data were analyzed using SPSS version 11.5. Reliability and validity were ensured through the use of a structured observational checklist and a pilot study was undertaken. The observations were all observed and recorded by the same researcher.

The majority of the 120 women (91.7%) stated that they had never practiced BSE before the Breast Week. After receiving health education on BSE, 95% were able to demonstrate an effective method of undertaking BSE. It is thus recommended that every opportunity should be utilized in health care settings to teach BSE and to reinforce the practice, especially in poverty stricken countries where other forms of screening methods are unavailable.

## Introduction and problem statement

Empowerment of women with information on breast self-examination is of paramount importance especially in countries without modern technologies for breast cancer screening. Breast cancer is one of the diseases affecting women in Sierra Leone as in many other countries. Whilst figures for the number of women affected by breast cancer in Sierra Leone are not known, 4789 new cases of female breast cancer were reported amongst South African women in 1997. These comprised 16.4% of all cancers reported in women in that year (National Department of Health, 2003: 2).

During clinical practice, one of the researchers noted that the number of women admitted to the wards with breast lumps and terminal stage breast cancer appeared to be increasing. For some of these women surgery was the line of management combined with chemotherapy. It was not known whether these women knew about breast cancer and how to examine their breasts for abnormalities nor their reason for seeking help so late. The researcher's observations were supported by the senior specialist surgeon of the main referral hospital in Freetown, and by nurses working in the female surgical wards. An assessment of the available records revealed incomplete

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documentation of outcome of treatment. Furthermore, no empirical studies had been undertaken to verify these observations. The researcher therefore initiated a Breast Week and a call for women to undergo a free breast examination and routine teaching on how to examine their breasts was promoted through the media and by the tutors and students of the nursing college. This study was a follow up measure, undertaken one year later to ascertain whether the information on BSE provided during the Breast Week was being utilised and whether what was being taught was being put into practice.

Early screening for the detection of breast cancer is widely accepted as an important determinant in the success rate of surgery (Rosenfeld, 2004:384). Unfortunately women in Sierra Leone have no access to modern technologies in the detection and treatment of cancers except that of surgery. Lack of knowledge on how to perform simple life saving diagnostic breast checks such as breast self-examination further compounds this problem. Emphasis has been placed on early detection as being vital, as most cases of patients with breast cancer in the developing countries, are incurable at the time of diagnosis. There is also substantial evidence from studies conducted in Africa that women in developing countries are more likely to obtain inadequate or no access to modern technology (WHO, 1997:2). For women to be aware of the threat they face with breast cancer and be able to make decisions on how to combat such threats, they need to be well informed. The American Cancer Society states that at least 90% of the women who develop breast carcinoma discover the tumors themselves (Klotter, 2002:1). Information is generally associated with positive views and power to make decisions affecting one's life. Often women have no access to the information they need in order to bring about change.

### The Breast Week

It was against this background that a Breast Week was launched in November 2002. The Breast Week was advertised on radio programmes and in the communities by nurse-midwife tutors and nurse-midwives in training. Following this, a radio discussion on breast cancer and breast self-examination was held in Freetown prior to the Breast Week. A call for women to undergo a free breast examination and routine teaching on how to examine their breasts was promoted. Women had their breasts examined and at the same time were taught what to observe for and when to report any abnormalities detected. During this period, the women were also asked to repeat the breast examination to the examiner. On successful repeat performance they received counselling on where to seek help in the event of any deviation from the normal.

## Significance

The need to evaluate the effectiveness of health education in the early detection of breast cancer is desirable. BSE is an integral part of a woman's reproductive health and general wellbeing. Breast self-examination (BSE) is a simple, inexpensive way of screening for breast abnormalities, especially in countries where women cannot gain access to modern technology. The impact or effectiveness of a programme aimed at behavioural change is of great importance in the health care delivery system. Furthermore, methods used in the delivery of health care should be relevant to the major health problems of its citizens especially the vulnerable groups. The goal of health education in BSE is to create awareness and increase the competence of women to meet their needs and challenges in improving their health. An assessment of the knowledge and skills used in empowering women in BSE is therefore of relevance.

## Literature review

Early detection of breast cancer is aided by breast cancer screening methods. Three methods are used to detect cancer of the breast - clinical breast-examination, mammography (X-ray screening) and breast self-examination (BSE) (Rosenfeld, 2004: 385).

### Clinical breast-examination (CBE)

This is examination of the breasts by a trained physician. Periodic examinations by a physician, in combination with an annual mammogram for women over fifty, are recommended by the World Health Organization, where possible (LoBuono, 2001:2) It has also been suggested that women with a family history of cancer should consider a more intensive screening programme (LoBuono, 2001:2). In a US breast cancer detection study (LoBuono, 2001:2) 39% of cancers 1cm in size were detected by clinical breast examination, whereas in situ cancers accounted for 18% of the cancers detected by mammography that would not have otherwise been detected by clinical breast examination, 22% of invasive cancers less than 1cm in size were detected by mammography, which according to the researchers, clinical breast examination could not have succeeded in doing.

### Mammogram (Mammography)

The mammogram is an x-ray examination of the breast and is used as a screening method for breast cancer, as well as in its diagnosis (Northrup, 1999:328). The use of the mammogram as part of breast cancer screening has been widely promoted especially in countries where such facilities are available. According to Mittra, Baum, Thornton, and Houghton (2000:1), mammography is a complex, expensive and partially effective test. They argue that there is sufficient circumstantial evidence to suggest that clinical breast examination is as effective as mammography in reducing mortality from breast cancer and that comparison between the two screening methods in a randomized trial is worth researching. Use of the mammogram however is not without its own risks. Regular mammograms are not routinely advised for young women under the age of 35 who are not at high risk. Rosenfeld (2004:389) states that the risk of developing radiation-induced breast tumours is high in girls and teenagers. In addition to this, the density of the breast tissue in younger women makes it difficult to distinguish a mass or dense spot on the mammogram. Therefore less accurate pictures are obtained.

According to Keitel and Kopala (2000:36), some doctors credit mammograms with reducing breast cancer mortality, while others condemn them as being unreliable. In an attempt to achieve better outcomes, Keitel and Kopala (2000:36) reiterated that the technology could be improved. In addition, it was stressed that the mammogram alone is insufficient as a screening tool and should be used in combination with manual examination. A similar comment was made by Northrup (1999:331) that the mammogram is a very sensitive method for detecting breast cancer, however, it was described as not perfect.

Rosenfeld (2004:384) however states that the sensitivity of the mammogram ranges from 75-88% but is lower in younger

women. The National Cancer Institute recommends that women in their 40's have a mammogram every 1-2 years, whereas the American Cancer Society recommends that women be screened first at age 40 and then every year thereafter (Mittra, Baum, Thornton & Houghton 2000:1). Despite this differing view, they both agree on an annual mammogram after 50 years of age. This has implications for women below age 40 as breast cancer affect different age groups. In effect, women who do not fall under the recommended age group for mammogram have but little option than to rely on BSE and/or clinical breast examination.

In addressing the use of breast cancer detection techniques for women over 40 years, Dr Nancy Baxter of the Canadian Task Force on Preventive Health Care cautions that in addition to breast self-examination, women over 40 years should turn to mammography and professional breast examination instead of relying on breast self-examination (Baxter, 2001:1). There is sufficient circumstantial evidence to suggest that a combination of regular mammograms and examination by a physician is as effective in reducing the mortality rate from breast cancer (Mittra et al, 2000:1). The high cost of screening mammography has been a persistent problem causing widespread underutilization in the United States resulting in a growing number of facilities offering low-cost screening mammograms (Bassett, Jackson, Fu and Fu, 2005:19). While some developing countries cannot afford the cost of procuring a mammogram, women can benefit from learning the techniques of breast self-examination.

### Breast self-examination (BSE)

Breast self-examination is a simple, inexpensive, non-invasive and non-hazardous means of detecting breast cancer at an early stage (Rosenfeld, 2004:391). Breast self-examination is reported to be less effective than a mammogram or examination by a trained physician. However, it is a valuable approach, particularly in a country like Sierra Leone that cannot afford sophisticated screening services for the entire population at risk.

Differences in the technique of performing BSE do exist (Smeltzer and Bare 2000: 1264). Smeltzer and Bare (2000: 1264) state that what is important, is that the pattern selected is used consistently, done thoroughly and deliberately to ensure the examination involves the whole breast. According to the Breast Cancer Society of Canada, 70% of all breast growths whether malignant or benign, are discovered during breast self-examination; nine out of ten growths are detected by women themselves, and eight out of ten breast growths are non-cancerous. In order for a woman to detect breast cancer early she needs to be aware of the changes that are suggestive of breast cancer. This intervention involves performing monthly breast self-examination, observing for and noting abnormal changes in the breasts and reporting to the doctor promptly.

### Performance of Breast Self-Examination

Periodic breast self-examinations are very important for the early detection of breast cancer. According to Smeltzer and Bare (2000: 1263), BSE forms an essential part of a woman's health care and should be conducted preferably five to seven days after menstruation. The best time to examine the breasts is after the menstrual period when the breasts are not tender or swollen (Northrup, 1999:313). Menopausal women and those who do not have regular periods are advised to examine their breasts on a monthly basis - that is on the same day every month (Hussain, 2002:1). The World Health Organization recommends that women over twenty years of age should examine their breasts regularly every month (Hussain, 2002:1).

### Controversy over Breast Self-Examination.

Breast self-examination (BSE) is still regarded and promoted as a practice that empowers women, as a way of taking control in the face of this widely feared disease. In 1994, the Canadian Task Force, as part of its conclusion recommended that there was insufficient evidence to recommend for or against BSE (Mittra et al, 2000:2). They however cautioned that women are not being advised to stop performing BSE and stressed that those who request to be taught the procedure, should be instructed to perform it in a proficient manner (Mittra et al, 2000:2). Napoli (2001:1) reiterated that women themselves, in the course of normal everyday practices such as showering, dressing, and making love, find most non-mammography-detected breast tumours.

In developing countries where women cannot access modern diagnostic tools such as a mammogram, women rely on BSE as the available option. Chiffriller (2003:1) writes that, "Examining your breasts is your greatest weapon to fight breast cancer".

## Purpose

The purpose of this study was to determine the effectiveness of knowledge regarding BSE education given to women in Freetown and its impact towards early detection of breast cancer.

## Research objectives

- To establish the ability of women to perform BSE in Sierra Leone
- To determine the effectiveness of knowledge given to women regarding BSE education during the breast week.
- To make recommendations regarding the use of BSE as a screening method.

## Operational definitions

- Breast self-examination – systematic self examination of the breasts by a woman for the purpose of detecting abnormalities.
- Effectiveness – positive changes in behaviour in terms of examining the breast for abnormalities, and where appropriate, reporting abnormalities detected, to the hospital.
- Health Education – to teach topics that pertain to caring for oneself and one's health needs so as be knowledgeable.
- Health Promotion – the active participation in the promotion of healthy lifestyle and the prevention or early detection of a disease through acquisition of knowledge in the relevant area.
- Women – refers to the women who participated in the Breast Week and who participated in the follow up study.

## Conceptual framework

An appropriate framework for this study is one based on the individual's participation in health care promotion. The performance of BSE requires both

knowledge and skills in order to promote health performing habits. Hence the choice of Orem's Self Care Nursing Model. This model was selected because it addresses the key concepts of this research. The self-care aspect in Orem's words centers on "being alert to types of hazards that are likely to occur and taking action to identify and attend to deviations from one's structural and functional norms" (Orem, 1980:44). This means that the idea of a woman observing her breasts for abnormalities will help her in the maintenance of the integrity of the structure of the breasts as well as its functions through early detection of deviation from the normal. The therapeutic self-care demands then act as motivators to her, to periodically examine her breasts as part of her normal routine care. The need for clients to incorporate newly prescribed, complex self-care measures into their self-care systems requires the performance of specialized knowledge and skills acquisition through training and experience (Orem, 1980:54).

## Research design

A quantitative approach with a descriptive-observational design was adopted for this study. Direct observation techniques, which involved direct observation of the participants' skills in performing BSE were utilized. To facilitate the process a checklist was developed by the researcher on the basis of the current literature on BSE. The checklist demanded "yes" and "no" responses in relation to the performance of tasks or activities set out.

### Population and Sample

The target population for this study was those women who attended the Breast Week. A total number of over 1 200 women participated in the Breast Week held in November 2002 in Freetown, Sierra Leone. The criterion for inclusion in the study was limited to only those women who participated in the Breast Week A sample of 120 women, systematically selected from the population of over 1200 women who participated in the breast cancer week was used. The study was carried out a year after the Breast Week.

Every tenth woman on the registration list of women who took part in the Breast Week was selected through systematic random sampling as a participant for this study. During the Breast Week, participants had been informed of the possibility of a future study. Student midwives who had participated in the Breast Week, assisted in tracing the participants using the information recorded in the register during the Breast Week. The student midwives were assigned to the participants living in close proximity to their residential areas. Tracing participants continued until the sample size was achieved. Participants were asked to present themselves on specific dates and at a time when they were available.

### Data Collection

Direct observation of the participants, using a checklist, addressed the practical aspect and skills acquisition. The checklist was divided into the following sections: breast inspection, breast palpation and detection of abnormalities. The women were asked to explain and give reasons for every observation made during the procedure. Data were collected over a period of four weeks. The practical room in the nursing education institution was utilised as the venue for the study. Each participant proceeded to the examination room alone where she was asked to perform a breast self-examination under the direct observation of the researcher. Privacy of the participants was ensured throughout the procedure. A systematic way of recording the observed activities or actions is paramount in any scientific study (Polit & Hungler, 1997:269). Therefore as a means of ensuring validity and avoiding subjectivity, a checklist was used in the observation of the woman's performances.

### Data Analysis

Data were analysed using SPSS 11.5 and were presented using frequencies and percentages.

### Validity and reliability

Reliability and validity were ensured through the use of a structured observational checklist and a pilot study was undertaken. The checklist was pre-tested on five women from the target population. These women were not included in the final sample size of 120. The observations were all observed and recorded by the same researcher.

## Ethical considerations

Permission to undertake this study was sought from the University's Research Ethic Committee, the Ethics Committee on Health, Freetown, Sierra Leone, the Consultant in-charge of the main referral hospital in Freetown and the participants. Each of the participants were approached with a participant information letter informing them about the study and requesting their permission and approval to participate in the study. Anonymity, confidentiality and privacy were ensured. Participation in the research was voluntary. Participants were offered the opportunity to withdraw from the study at any time and were assured of no ill effects. An atmosphere of good rapport had been established during the Breast Week and none of the participants withdrew from the study. Participants were given a pamphlet on breast self-examination (BSE) and a pink ribbon as a token of appreciation for participating in the study.

## Findings

### Performing BSE after Breast Week

Almost all of the women (91.7%) stated that they had never practiced BSE prior to the Breast Week, as compared with only 5% who stated that they had not performed BSE since the Breast Week In the follow up study, 32.5 % of the respondents indicated that they examined their breasts once a month, the same number of women said they examined their breasts sometimes. Despite the information provided on the importance of regular performance of BSE, 34.2% of the women indicated that they examined their breasts after their monthly period, while 3.5% women stated that they performed breast checks whenever they felt something was wrong. The majority of the respondents (68.3%) stated that they examined their breasts when having a bath. This finding is supported by Keitel and Kopala (2000:38) who report that most women perform BSE whilst bathing or taking a shower.

## The breast self-examination

### Inspection of the breasts

One hundred and ten of the respondents at the start of the examination mentioned that they would first take a look at the breast to inspect the shape and skin tissue for abnormalities. Ten of the respondents did not make mention of the first step of inspecting the breasts.

### Palpation of the Breast Tissue

Most of the respondents (75 %) started

palpating their breasts from the axillary portion of the breast, whilst 25 % began from the center. Almost all (95.8 %) palpated their breasts in a circular manner to check for breast lumps or any other abnormality. Only 4.2 % were observed to start the palpation in quadrants, which is a division of four sections. Furthermore, 88.3 % of the respondents used the pads of the fingers to check the breast tissue, whilst 11.7 % of the women did not use the pads of their fingers, but instead used their finger tips. Use of the finger tips makes abnormalities situated deep within the breast tissue difficult to palpate. With the exception of one respondent, all examined the second breast in the same manner. One respondent had undergone a mastectomy. She however mentioned that she still examines the scar area for any further changes that may be abnormal.

### Examination of the Nipples

On completion of palpating the breast tissue 91.7% squeezed their nipples to detect abnormalities such as a bloody nipple discharge or offensive pus-like discharge, which are also associated with cancer of the breast. Very few women (8.3%) did not examine the nipples for abnormalities. Omission of any area can lead to missed abnormalities. Hence it is important that the whole breast and surrounding areas are properly examined.

### Detection of Breast Abnormalities during the Study

Only one of the respondents reported palpating a lump in her right breast during the demonstration. The researcher confirmed this, by palpating the breast herself. Further analysis revealed that this woman had had the lump detected during the Breast Week and had been referred to the surgeon, who she had seen. He had recommended surgery, but she had not been able to afford this. The researcher used this opportunity to counsel the woman on the importance and need for prompt action after detection of breast abnormalities.

## Discussion of key findings

One of the objectives of the Breast Week was to empower the women with the necessary knowledge and skills in BSE in order to enhance their participation in self care in relation to care of their breasts and in so doing promote positive health outcomes. Women were counseled and taught the importance of routine BSE in helping them make informed decisions.

### Performance of BSE after Health Education during the Breast Week

The performance of BSE requires both knowledge and skills in order to promote health performing habits. Responses of the participants showed that the information given on breast self-examination was fully understood and is being utilized as one of their health practices. This was determined by the number of women who examined their breast before and after the breast week.

On analysis of the findings, 91.7% of the participants had never practiced BSE prior to the breast week; in comparison, the percentage of women who are now practicing BSE after the information and skills imparted during the breast week was noted to be higher (95 %). This change in behavior was significantly different with $p = 0.000$.

In this study, it was observed that 5% of the women did not practice BSE despite the information provided on the importance of regular performance of BSE. Consistent with this finding is the view expressed by Northrup (1999:331) as she noted that despite awareness of BSE most women do not examine their breasts. However, the number of women in the study who did not practice BSE is relatively small compared to those currently practicing BSE. One possible explanation could be that these women misinterpreted the information as a good indicator of their breast status and thus they did not see the need for future checks. Another possible explanation for this misinterpretation could be the respondent's level of knowledge. The need for ongoing education and health promotion is of importance especially to disadvantaged women. Women's support groups or community projects on reproductive health issues should use such projects as a platform for reinforcing positive health habits and dissemination of information.

### BSE and self-care practices in women

Despite the controversy surrounding the effectiveness of the practice of BSE in developing countries, breast self-examination has been recommended as a useful screening tool for breast abnormalities such as breast cancer especially in countries where women do not have access to modern screening method. This study has shown that teaching women in Sierra Leone breast self-examination enabled them to be involved in their self-care practices. The acquisition of knowledge by the respondents led to an increased awareness in BSE performance as a health related activity. In the context of Self-Care, Orem (1980:54), views individuals as biopsychosocial beings who engage in decisions and take action towards their wellbeing and health. Their ability to practice breast self-examination was enhanced with the assumption of responsibilities for self-care. They also mentioned early detection and reporting of breast abnormalities to the hospital for medical interventions, as one of the benefits of performing breast self-examination. Clinical studies indicate that most lumps are detected by women themselves during bathing or when taking a shower (Napoli, 2001:1). Findings in this study seem to follow this trend as 68% of the women stated that they perform BSE when having their bath.

### Performance of BSE

In practice, the performance of BSE involves three important steps. The checklist specifically addressed each step in BSE. During the observation of the women, these three aspects of BSE performance were addressed by most of the women except for a few. Inspection of the breasts is one of the first steps in BSE, 91.7% of the women mentioned this step before proceeding to the actual palpation of the breast tissue and 91.7% demonstrated knowledge with regards squeezing the nipples for abnormalities. On observation, almost all of the women were able to examine their breasts for abnormalities. Most of the women demonstrated how to examine the breast tissue and the nipples for abnormalities. However, 8.3% of the women could not remember all the steps involved in BSE. These women omitted squeezing the nipples after palpation of the breast tissue.

These weaknesses or gaps in knowledge required a repeat demonstration of the correct technique used in BSE. This was done by one of the researchers. Two categories of women were identified during the study, those who mastered the skills and those who did not master the skills of examining their breasts using key points. However, failure of a woman to examine the axillary portion of the breasts as part of the breast during BSE might

result in her missing enlarged lymph nodes or abnormalities in this area.

The need for health professionals to perform additional physical examinations on women involving the breasts is of importance in all health settings. Acknowledging that the majority of the women in this study can perform BSE, the absence of a policy on breast cancer and BSE is an indicator of the status of women's health in any country. More effort should be directed at national level to ensure knowledge and skills acquisition in
the practice of BSE. The need for modern technology to assist in or confirm diagnosis of breast abnormalities detected during BSE is an issue for consideration at national level. Some of the respondents indicated that this will give a better picture of the disease. Specific mention was not made of a mammogram, the technology was described as a machine.

### Detection of Breast Abnormality

The objectives of teaching BSE is for women to know about breast cancer and its risks, how to examine their breasts regularly, report early any abnormalities associated with breast cancer and to seek prompt medical advice. This in effect will help them to get a better prognosis and thus increase the survival rate from breast cancer. Despite the information provided on early reporting and prompt treatment, one of the three respondents who had a breast lump had not had the lump removed as advised by the breast surgeon. This finding can possibly explain some of the reasons why women seek help very late when abnormalities are detected. Financial constraints can be an inhibiting factor in decision making for women with breast problems who need surgery. The effectiveness of health education and promotion on breast cancer and BSE practice in terms of utilizing appropriate medical facilities for treatment can be hampered by the high cost of medical services in a country like Sierra Leone where patients are expected to pay for their medical care. The objective of teaching women to report to hospital, seeking early treatment for a better outcome can be undermined as a result of this.

## Recommendations

Findings in this study highlight the issues surrounding women's participation in their breast health. In the light of this, recommendations in key areas of nursing practice are made as follows:

### Nursing Practice

The issue of breast cancer and BSE is relevant in nursing and deserves special attention. The role of a nurse as a teacher, counselor and educator is crucial in women's health and cannot be underestimated in the health education of clients as discussed in Orem's Self-Care Model. Nurses should use every opportunity to teach BSE and to reinforce the practice when seeing women in health settings.

### Nursing Education

Nursing curricula must include information on breast cancer and methods of screening for the disease. Breast Self-Examination must be taught as a method of empowering women in their self-care.

### Policy Implications

From the study, it became apparent that the women realized that there are limitations to BSE as they indicated that the help of professionals is needed after they have detected abnormalities in their breasts. In this respect, women's health issues need more attention by government and policies on breast cancer. While these findings are discussed, further efforts are needed by governments and policy makers to provide women with other screening options. In this regard, women who detect breast lumps or abnormalities during BSE will need further checks to confirm the diagnosis or histological confirmation of breast tumors. Nurses can also be influential in lobbying for changes in health policy to cater for disadvantaged women who cannot afford the cost of surgery or treatment.

## Conclusion

Breast self-examination is described as a simple technique and is credited as helping early reporting of breast abnormalities. In the literature there appears to be some controversy over BSE in the reduction of breast cancer mortality. Although the usefulness of teaching women BSE has however being questioned by researchers in developed countries and has not been accepted as an effective method of screening for breast cancer, nevertheless, this study has highlighted its benefits in raising awareness and detecting breast lumps in three women in the study. BSE is seen as a means of empowering women to improve their quality of life with the aim of early detection and better prognosis. The role of knowledge in breast self-examination as one of the techniques in breast cancer screening cannot be undervalued in disadvantaged communities. It is apparent from this study that in a country such as Sierra Leone, where means of accessing modern technology of screening for breast cancer are non-existent, the need to teach women a simple method of early detection of breast cancer seems to be beneficial. Downright condemnation of teaching women BSE does not seem to be practical in these situations where women do not have any other option or opportunities for their breast checks. In the absence of modern screening methods such as the mammogram, women are motivated to be involved in their breast care as part of their daily routine.

The study concluded that the majority of the women who had been given information on how to perform BSE continued the practice. It was found that the majority of the respondents (91.7%) could perform BSE despite a few lapses in the technique. Mention was made by the women of the need for review by experts when abnormalities are detected during BSE. The ultimate reason for teaching women BSE is its ability to raise awareness of the dangers of breast cancer and the need to identify and report abnormalities early. Based on the findings of the study, it can be concluded that the information given during the breast week was understood by the majority of the women and the practice of BSE is being utilized by the women. Gaps observed in the practice of BSE were identified and corrected through reinforcement of health teachings on BSE by the researcher.

## References

**BASSETT, LW; JACKSON, VP; FU, KL & FU, YA 2005:** Diagnosis of breast diseases. 2nd Edition. Philadelphia: Elsevier Saunders.

**BAXTER, N 2001:** Preventive Health Care. Update: should women be routinely taught breast self-examination to screen for breast cancer? Canadian Medical Association Journal: 164 (13): 1837-1846.

**CHIFFRILLER, M 2003:** What you need to know about breast cancer. Retrieved March 15, 2003 at http:// breastcancer.about.com/cs/mamograms/

**HUSSAIN, AN 2002:** Breast Self-Examination. Retrieved April 16, 2003 at http://www.emedicine.com/aaem/ topics59.htm Last updated June 20, 2002

**KEITEL, MA & KOPALA, M 2000:** Counselling women with breast cancer. A guide for professionals. London: Sage Publications, Inc.

**KLOTTER, J 2002:** Breast examinations. Retrieved March 15, 2003 at http:// www.findarticles.com

**LOBUONO, C 2001:** How to perform an effective clinical breast exam. Women's Health. Retrieved March 15, 2003 at http:/ /www.findarticles.com/cf

**MITTRA, I; BAUM, M; THORNTON, H; & HOUGHTON, J 2000:** Is Clinical Breast Examination an acceptable alternative to mammographic screening? British Medical Journal. Retrieved March 15, 2003 at http://www.findarticles.com/ cf

**NAPOLI, M 2001:** Breast Self Exams lead to unnecessary breast biopsies studies show. Canadian Medical Association Journal. Retrieved April 10, 2003 at http: www.findarticles.com

**NATIONAL DEPARTMENT OF HEALTH 2003:** Health Systems Research, Research Co-ordination and Epidemiology 5(4) : 1-4.

**NORTHRUP, C 1999:** Women's bodies, Women's wisdom. The complete guide to women's health and wellbeing. London: The Bath Press.

**OREM, DE 1980:** Nursing Concepts of Practices. 2nd Edition. New York: Mc Graw Hill Company.

**POLIT, DF & HUNGLER, BP 1997:** Essentials of nursing research: Methods, Appraisal, and Utilization. 4th Edition. Philadelphia: J.B Lippincott.

**ROSENFELD, JA 2004:** Handbook of women's health: An evidence-based approach. New York: Cambridge University Press.

**SMELTZER, S C & BARE, B G 2000:** Brunner and Suddarth's Textbook of Medical-Surgical Nursing. Philadelphia : Lippincott

**WORLD HEALTH ORGANIZATION 1997:** Cancer incidence in five continents. Vol vii. Lyon International Agency for Research on Cancer. Geneva: WHO