



<http://semj.sums.ac.ir/vol8/apr2007/breast.htm>

Breast Self-Examination among Female Nurses in Jordan.

Ali Abu-Salem OT*, Abdulla Hassan M**.

* Senior Consultant, Department of General Surgery, ** Registered Nurse, Royal Medical Services, Irbid, Jordan.

Correspondence: Dr. Osama Turkey ALI Abu-SALEM, P.O.Box:620033, Irbid, Jordan, E-mail: osama65@gmail.com.

Received for Publication: November 10, 2006, Accepted for Publication: February 2, 2007.

Abstract:

Objective: In the past 20 years, breast cancer incidence in the world has a dramatic increase of 50-100%, which strongly supports the need for breast cancer prevention, and screening programs. The purpose of this study was to identify and investigate the knowledge and practice of breast self-examination (BSE) with the influencing factors on the compliance of (BSE) among female nurses.

Methods: A study was conducted between January and December 2002. Female nurses (80) from Prince Rashid Military Hospital constituted the study population. The questionnaire contained items on the demographic characteristics of the respondents, knowledge of breast cancer, attitudes toward BSE and questions regarding the practice of BSE. The analysis included descriptive statistics to examine the association between BSE and medical history, knowledge of BSE and attitudes toward BSE.

Results: The results of the study indicated that 52% of the sample performs BSE. Approximately 30% of those who perform BSE said they learned information regarding BSE during their work experience. The significant relation was found between higher levels in work experience and BSE practice. Except for age, no significant relation was found between the socio-demographic factors and BSE practice. The sample showed strong belief in breast lump as a causing factor of breast cancer and had significant correlation with BSE practice.

Conclusion: Positive correlations were found between nursing work experience and their practice in BSE as working nurses. Studies like these can enhance the knowledge regarding BSE among nurses and other medical professionals.

Key Words: Breast self examination, Jordan.

Introduction:

Breast Cancer is easier to treat the earlier it is found. For that reason, some experts recommend that women over age 20 perform a monthly breast self examination to look for new lumps and other changes. the self exam has limitations, however, and is not a substitute for regular breast examinations from your doctor or screening mammogram.

Breast self-examination is a simple, very low cost, non-invasive adjuvant screening method for the detection of early breast cancer in women. Its purpose is important in case of a prompt reporting of breast symptoms which are important early detection messages for women of all ages, and to make women familiar with both the appearance and the feel of their breasts as early as possible. There is evidence that women who correctly practice Breast self-examination monthly are more likely to detect a lump in the early stage of its development, and early diagnosis has been reported to influence early treatment and to yield a better survival rate⁽¹⁾. There is an evidence suggests that clinical breast examination detects most breast cancers found by mammograms, and also some mammograms miss, particularly in younger women, If you do perform monthly examination, do them 3-5 days after your period, when your breasts are the least tender and lumpy, recent estimates suggest that screening by breast examination has a sensitivity of about 54% and a specificity of about 94%, in some countries, the cost of screening mammography are considered to be high and policy makers are considering implementing screening programs based on clinical breast examination rather than mammography⁽²⁾. It's known that breast

cancer in general affects up to one in 11 women during life.

It was found that mortality had fallen by 31% after 6-years for women aged 40-70 at the beginning of the trial ⁽³⁾. Unfortunately despite the benefits of regular Breast self-examination, few women actually examine themselves; in fact, majority does not even know how to do Breast self-examination ⁽⁴⁾. Although opinions conflict about the value of BSE ⁽⁵⁾. There is no uniform agreement for breast screening.

Materials and Methods:

A study was conducted between January and December 2002. Female nurses were 80 in number, working at Prince Rashid Military Hospital. The nurses who were having regular breast examination were 42 (52%) with anon compliant or irregular breast self examiners were 38(48%) nurses.

The study was designed to provide description of the knowledge and practice Of performance BSE. The socio-demographic factors, medical history and the Interrelationships between these variables, knowledge of breast cancer, attitudes toward BSE and questions regarding the practice of BSE.

Results:

Participants in this study ranged in age from 18-40 years, with mean of 29 years and their BMI was 24. Single women made up to 60%(48) of the sample and 40%(32) were married (Table 1). The results of the study indicated that 52% (42) of the sample performs BSE. Approximately 30% (13) of those perform BSE regularly. Only 5% (4) of the subjects were having positive family

history of Breast Cancer and 85% (68) showed regular menstrual cycle. Out of the total sample, 25 (31%) nurses reported pain in their breasts.

The significant relation was found between higher levels in nursing work experience and BSE practice. 60-80% of subjects believe that presence of masses (breast lumps), family history of breast cancer (Table 2), nipple discharge, frequent mammograms and smoking are the causing factors for breast cancer. 10 % (8 nurses) of subjects believe that, usage of contraceptives, wearing of Nylon bra, using breast creams; direct sun exposure, obesity and ovarian pain are the breast cancer causing factors.

Table 1: Characteristic of the study population.

Characteristic	frequency	(%)
Married	32	40
Unmarried	48	60
BSE	42	52
Learned about BSE by work experience as a nurse	24	30
Family history of BC	5	6.3
Regular menstrual cycle	68	85
Feeling breast pain	25	31

Table 2: Results of variables with BSE practice.

Variables	
Age	18-40
Body mass index(BMI)	24
Family history of breast cancer	4 (5%)
Regular menstrual cycle	68 (85%)
Feeling breast pain	25 (31%)
Nursing work experience	
Recent (Less than 2 years)	15%,
Intermediate (between 2 to 6 years)	34%
Long term (more than 6 years).	51%

In this present study sample (Table 3), pregnancy at early age and breast feedings

are the least believed to be causative factors of breast cancer. The significant correlation was seen between large breast lump and BSE.

The most frequently endorsed steps (Table 4) were examining breasts in front of a mirror, or during bath, examining breasts while lying down, and feeling for a lump, hard knots, nipple discharge, or breast thickening. The least frequently endorsed step was looking at breasts in the mirror with hands on thighs. overall; the majority of subjects knew most of the recommended steps.

Discussion:

In our study 52% perform BSE, which give the awareness of reporting breast symptoms as an early detection messages for all females in the study and in the population in general who will get benefit of this study group.

Table 3: breast cancer beliefs and its significance for practicing BSE.

Factors	Frequency(%)
Family history of breast cancer	4(5)
Breast mass	56(70)
Nipple discharge	40(50)
Breast pain	20(25)
Ovarian pain	16(20)
Smoking	10(8)
Frequent mammogram	10(8)
Contraceptive usage	5(4)
Using cream on breasts	2(2.5)
Obesity	17(21)
Sun-light exposure	6(7.5)
Consumption of fatty foods	11(13.7)
Consumption of spicy foods	5(6.3)
Pregnancy at early age	2(2.5)
Breast feeding	1(1.25)

Table 4: Frequency and percentage distribution of performance of BSE steps

Breast self examination steps in nurses with regular BSE.	Frequency (%) 52%(42nurses)	Z Value	P-Value
Examining breasts at end of menstrual period	37(87.5%)	7.35	0.001
Look at breasts in mirror with arms at sides	16(37.5%)	1.67	/
Look at breasts in mirror with arms raised over the head	15(35%)	2.04	0.021
Look at breasts in mirror with hands on thighs	13(41%)	2.66	0.016
When Looking at breasts in mirror, looking for swelling, dimpling of skin, or changes in nipple.	40.94%	12.01	0.001
Examine breast while lying down, place a towel or pillow under shoulder before examining breast on the side	21(49%)	0.13	0.87
Use right hand to examine left breast and left hand to examine right breast	41(97.5%)	19.72	0.001
Examine one breast at a time	42(100%)	unknown	0.000
Examine breasts in a circular, clock wise motion moving from outside in.	36(85%)	6.35	0.001
When examining breast, feel for lumps, hard knots, or thickening, Red or hot skin, orange peel skin, Dimpling or puckering, changes in nipple axis, itch or rash, especially in nipple area.	36(86%)	6.72	0.001
Squeeze the nipple of each breast to look for discharge, bloody or spontaneous discharge.	27(65%)	2.04	0.021

To date, the etiology of breast cancer is uncertain and adequate primary prevention is not possible. Thus early detection measures remain the first priority. More than 50% of the total breast cancer diagnosed annually is found in premenopausal patients, creating the need to initiate breast cancer screening programs in this population. These measures include BSE, which is screening behavior of relevance for women's health.

First, lie on your back. Place your right hand behind your head. With the middle fingers of your left hand, gently yet firmly press down using small motions to examine the entire right breast. Then, while sitting or standing, examine your armpit (commonly skipped) because breast tissue extends to that area. Gently squeeze the nipple, checking for discharge. Repeat the process on the left breast.

Although, some women find it easier to do the examination in the shower, when the skin is soft and wet, you are more likely to examine all of the breast tissue if you are

lying down. Breast self examination is a unique procedure in many ways:

it is inexpensive, non invasive, involves little time and physical energy, is simple and doesn't depend on professional help. However, the effectiveness of BSE remains controversial. It is argued that significant number of women find masses when they are bathing or dressing, and BSE once a month may contribute to a women's heightened awareness of what is normal for her⁽⁶⁾. The justification for this position is laid out in the discussion with a call for additional research. Despite the demographic and economic challenges posed by the aging of the population and the increasing incidence of breast cancer with age, we have to continue screening in older women who have few competing causes of mortality and who would be candidates for treatment if breast cancer were identified, the chronological age alone may be a difficult way to determine the utility of screening procedures, and that competing causes of mortality as well as

other factors should perhaps also influence future recommendation ⁽⁷⁾. In one study, it was shown that 81% of women first noticed symptoms themselves ⁽⁸⁾.

The evidence of primary cancer prevention is slowly growing; its strategies cannot yet be implemented in clinical prevention programs, therefore, secondary prevention, early detection of cancer, remains the main focus for reducing breast cancer mortality. This is especially true because of the proven relationship between mortality and size of the primary tumor as well as the status of the axilla.

Thus one may argue that if women are finding most breast cancer themselves, As what occurred in our study, about 36 nurses felt assort of self awareness of breast etiology or abnormality during their study time course, for which when they find breast lumps they may worry the patient for other help, normal breast tissue is present in both males and females of all ages. This tissue respond to hormonal changes and therefore, certain lumps can come and go. Breast lumps may appear at all ages: - infants may have breast lumps related to estrogen from the mother —young girls often develop breast buds that appear just before the beginning of puberty-teen age boys may develop breast enlargement and lumps because of hormonal changes, which are considered a normal variation of breast tissue, fibro adenomas are non cancerous lumps, like fibrocystic disease of the breast, they occur most often during the reproductive years and the only way for definitive diagnosis is by taking a biopsy., other types of lumps might be :milk cysts ,lipomas, papillomas. And breast cancer, treatment of a breast lump depends on the cause.

It is possible that by knowing how to do amore thorough BSE they could find breast cancer of smaller sizes. Which in turn may lead to an improved prognosis. Medical professionals have knowledge of the causes of diseases and have learned to recognize the warning signs of the disease when present in their patients. It seems, however, that these professionals don't always recognize the signs of their own illness ⁽⁹⁾.

Nursing profession is one of them, and it is very important for self-carefulness to be able to recognize the signs of their own illness Breast self examination is an examination that should be perfect for nurses. They have the knowledge of the clinical signs of breast cancer and of the examination technique, nurses can promote monthly BSE by supporting realistic beliefs about screening and cancer as well as demonstrating BSE, especially among married women. And they can do it themselves without consulting a physician. Furthermore, they are especially aware of the importance of the early detection of breast cancer for a successful treatment. It has been shown that confidence in one's BSE ability is strongly correlated to BSE practice in the general population.

Call your doctor if:

- You find anew breast lump during your monthly self-examination.
- You have bruising on your breast but did not experience any injury.
- You have nipple discharge, especially if bloody or pinkish (blood tinged).
- The skin on the breast appeared dimpled or wrinkled (like the peel of an orange).
- Your nipple is inverted (turn inward) but normally is not inverted.
- If you are over the age of 20, consider

doing a monthly breast self examination.

-If you are over 40, you have to complete breast self-examination in addition to the examination by the doctor every year.

-If you are over age of 50, get a yearly screening mammogram.

In one study, Budden ⁽¹⁰⁾ reported that 96% of the nursing students performed BSE during a year but only 46% had practiced regularly as once per month.

Haji-Mahmoodi et al ⁽¹¹⁾, reported from Across sectional study among female health care workers that, more than 70% of subjects had knowledge regarding BSE and also had strong belief on its beneficial affects but only 6% of them was performing BSE regularly .it is well documented that beliefs and behavior surrounding breast cancer vary with several factors such as ethnicity, age education and socioeconomic status ⁽¹²⁾. Initially, breast cancer screening program depended on breast self-examination, however, marital status, family monthly income and family history of Breast cancer showed no significant association with BSE practice. Similar results were reported by Budden, that, no significant relation was found between a family history of BC and regular BSE practice. Self-efficacy theory and behavioral self —regulation theory suggest that the most important predictor of a highly specific behavior (such as be BSE) is the individual's own confidence in performing the behavior⁽¹³⁾.

Amore optimistic attitude would appear to increase the likelihood of greater self efficacy in performing BSE .In other words, women who anticipated favorable outcomes in general were more confident in their breasts. Our study showed that there is a

strong belief that breast mass is a causative factor of breast cancer, which was reflected on its significant correlation with BSE practice.

Conclusion:

- Breast cancer mortality in US has been increasing 0.6% per year since 1987. This increase in mortality is occurring despite screening .In a move to reduce the number of deaths from breast cancer, we have to emphasis upon breast awareness in addition to breast self-examination.

-Initially, breast cancer screening program depended on breast self-examination,

-The prompt reporting of breast symptoms are important early detection messages for women of all ages.

-Factors recommended for female patients regarding breasts pathology are to do exercises regularly, reduce fat intake and to eat a lot of fruits, vegetables and other high fiber foods.

-In a Canadian breast mammographic screening study showed no difference between breast examination, BSE and five annual screenings with mammography compared with a single breast examination and BSE alone regarding the mortality in breast cancer, Nurses have a vital role to play in encouraging women to become more breasts aware. Their health promotion activities in this area can have an important impact on the uptake of breast screening initiatives.

-Biopsy is the only way to determine if tissue is benign (non-cancerous) or malignant (cancerous).

-The result of this study suggest that, for nurses, if more emphasis of BSE occurs in the work place and in undergraduate and postgraduate courses, nurses, teaching of

BSE to clients may be increased. Also, the provision of BSE educational programs is necessary to increase nurses' knowledge, confidence, performance, and teaching of BSE.

References:

- 1- American Cancer Society. Cancer statistics. CA: Am Cancer J Clin 2002; 52: 10-11.
- 2- Jatoi I. Screening clinical breast examinations. Surg Clin North Am. 2003 Aug; 83(4): 789-801.
- 3- Nystrom L. How effective is screening for breast cancer? BMJ 2000; 32:647-649.
- 4- Al-Abadi N. Factors influencing BSE practice among Jordanian nurses. Unpublished master's (thesis). Irbid (JO): Jordan U University of Science and Technology; 2001.
- 5- Gehrke AW (2000). Breast self-examination: A mixed message. J National cancer institute 2000; 92:1120-1121.
- 6- Larkin. M. Breast self examination does more harm than good, says task force, Lancet 2001; 357:2109-2110.
- 7- Judy E. Garber. Breast Cancer Screening: A Final Analysis? CA Cancer J Clin, 2003; 53:138-140.
- 8- Levchin V, Fedichkina T, Droggachih V. The experience of breast cancer screening (abstract) Eur J Cancer 1998; 34; 95-96.
- 9- Studemire A, Rhoads JM. When the doctor needs a doctor: Special considerations for the physician — patient. Annals of Int Med 1983; 98:654-659.
- 10- Budden L. Registered nurses' breast self-examination practice and teaching to female clients. J Comm. Health Nur 1998; 15:101-112.
- 11- Haji-Mahmoodi M, Montazeri A, Jarvandi S, Ebrahimi M, Haghigat S, Harirchi I. Breast self-examination: knowledge, attitudes, and practice among female health care in Tehran, Iran. Breast 2002; 4:222-225.
- 12- Madan AK, Barden CB, Beech B, Fay K, Sintich M, Beech DJ. Socioeconomic factors not ethnicity predict breast self-examination. Breast 2000; 6:20-26.
- 13- Scheier MF, Carver CS. Dispositional optimism and physical well being: the influence of generalized outcome expectancies. J Pers 1987; 55:169-210.