Brief Communication

Female Nurses and Breast Self-Examination: Can They Play A Role in Early Detection of Breast Cancer?

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Abstract

Objective: In the past 20 years, breast cancer incidence in the world has had 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). In addition to examining the factors influencing the compliance of (BSE) among female nurses as nurses can promote monthly BSE.

Methods: The study was conducted in the period between January and December 2002. (80) Female nurses 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 the person's medical history, knowledge of BSE and attitudes toward BSE.

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

Conclusion: Positive correlation was found between nurses work experience and their practice of BSE as working nurses. Studies like these can enhance the knowledge regarding BSE among nurses and other medical professionals.

Keywords: Breast, self-examination, nurses.

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Introduction

Breast cancer is easier to treat the earlier it is found. For that reason, some experts recommend that women over the age of 20 should 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.

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Breast self-examination is a simple, not costly, non-invasive adjuvant screening method for the detection of early breast cancer in women. Its purpose is to 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 can 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. On the contrary, other studies showed that it causes more harm than good. The study of Breast self examination among female nurses was done on nurses because they are relatively more aware of the danger of breast cancer than other females regarding their intimate work relation with patients suffering from this disease.

There is an evidence that suggests that clinical breast examination detects most breast cancers found by mammograms, which 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 54% and a specifity of 94%. In some countries, the cost of screening using the mammograph is considered to be high and policy makers are nowadays considering implementing screening programs that are based on clinical breast examination rather than mammography. It is known that breast cancer in general affects up to one out of each 11 women during their 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, most females are not aware of the prober BSE. Nevertheless, opinions conflict about the value of BSE. [4] There is no uniform agreement on the best breast screening methods.

Methods

The study was conducted between January and December 2002. A questionnaire was developed and distributed to (80) female nurses who were working at Prince Rashid Military Hospital, out of the (170) female nurses working there. The nurses who were having regular breast examination were 52 %(42), while the non compliant or irregular breast self examiners were 48 %(38) nurses.

The study sample completed voluntarily a self filled questionnaire (Table 1). Then, the known methods of analysis were used .The most frequently endorsed steps (Table 2) 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.

Table (1): Breast cancer beliefs and its significance in 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 (2): Frequency and percentage distribution of Performance of BSE steps.

Breast self examination steps in nurses with regular BSE	*Frequency (%) 52%(4 2nurses)*	*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*

Results

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

A 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 factors causing the breast cancer. 10 % (8 nurses) of subjects believe that, usage of contraceptives, using breast creams, direct sun exposure, obesity and ovarian pain are the most effective factors causing breast cancer.

In this present study sample, pregnancy at early age and breast feedings are the least believed to be causative factors of breast cancer. A significant correlation was seen between large breast lump and BSE.

Discussion

From the results of our study, 52%perform BSE, which shows the awareness among study sample of the importance of reporting breast symptoms as early detection messages among study sample and population in general.

These measures include BSE, which is a screening behavior of relevance to women's health.

Breast self examination is a unique procedure that in many ways: It is inexpensive, non –invasive, procedure that involves little time and physical energy, it 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 high awareness of what is normal for her. [5] 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.

Regarding who would be candidates for treatment if breast cancer was 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. [6]
In one study, it was shown that 81% of women in our sample first noticed symptoms by themselves. [7]

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.

The evidence of primary cancer prevention is slowly growing; its strategies cannot yet be implemented in clinical prevention programs, therefore, the 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 most women are finding breast cancer themselves, about 36 nurses felt a sort of self awareness of breast etiology or abnormality during their study course, meaning when they find breast lumps they may warn the patient and urge her for other help. Normal breast tissue is present in both males and females of all ages. This tissue responds 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; teenage 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 a more thorough BSE they could find breast cancer of smaller sizes. This 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. [8]

Nursing profession is one of such profession, 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 it should be performed in a policy for the prevention and control of breast cancer. 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.

In one study, Budden [9] reported that 96%of the nursing students performed BSE during a year but only 46% had practiced it regularly as once per month.

Haji-Mahmoodi et al. [10] reported from his cross-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 effects but only 6% of them was performing BSE regularly. It is well documented that beliefs and behaviors concerning breast cancer vary with several factors such as ethnicity, age, education and socioeconomic status. [11]

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, showing 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 BSE) is the individual's own confidence in performing the behavior. [12]

A more optimistic attitude would appear to increase the likelihood of greater selfefficacy in performing BSE .In other words, women who anticipated favorable outcomes in general where more confident in their breasts. Our study showed that there is a strong belief that breast mass means the presence of breast cancer or factor associated with it, which was reflected on its significant correlation with BSE practice ,and the common sense suggests that it is not possible for the nurses to somehow be "breast aware" without having breast self examination.

Conclusion

- 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.
- Nurses have a vital role to play in encouraging women to become more breast-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 who teach 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.

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فحص الثدي الذاتي عند الممرضات: هل يلعب دوراً مهماً في الاستقصاء المبكر لسرطان الثدي؟

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الملخص:

الهدف: في السنوات العشرين الماضية، زادت احتمالية الإصابة بسرطان الثدي في العالم بنسبة 50-100%، وهذا يدعم الحاجة إلى الوقاية من سرطان الثدي وعمل برنامج للتقصي عنه. لذا، فإن هذه الدراسة تهدف إلى تقصي مدى معرفة فحص الثدي الذاتي، وتعرُّف العوامل المؤثرة في التعاون من خلال الممرضات؛ لأنهن يستطعن ممارسة فحص الثدي الذاتي.

الطرق: أجريت هذه الدراسة في الفترة ما بين كانون الثاني وكانون الأول من عام 2002، وتكونت عينتها الدراسية من (80) ممرضة، يعملن في مستشفى الأمير راشد العسكري. وتضمن الاستقصاء كان يتضمن الخصائص الديمغرافية، والمعرفة بسرطان الثدي، والتوجه لفحص الثدي الذاتي مع فحص العلاقة بينهم.

النتائج: تبيّن أن نسبة 52% من النموذج الدراسي مارسوا فحص الثدي الذاتي، وأن 30% منهم تعلمن فحص الثدي الذاتي من خلال الخبرة في مجال العمل، ووجدت علاقة مهمة بين الخبرة العملية الطويلة وفحص الثدي الذاتي، باستثناء العمر، الذي لم توجد له علاقة مهمة بين العوامل الاجتماعية الديمغرافية وممارسة فحص الثدي الذاتي.

بينت العينة وجود علاقة قوية بين كتلة في الثدي وسرطان الثدي، كما بينت أن لهذا علاقة قوية متزامنة مع فحص الثدي الذاتي.

الاستنتاج: وجدت علاقة إيجابية متزامنة بين العمل التمريضي ذي الخبرة، والممارسة العملية لفحص الثدي الذاتي كجزء من عمل التمريض. ويمكن لدراسات مثل هذه أن تعزز المعرفة؛ لفحص الثدي الذاتي من خلال التمريض وأهل الحرف الطبية.

الكلمات الدالة: الثدي، فحص الثدي الذاتي، الممرضات.