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Breast Self Examination: Knowledge, Attitudes and Practice among Sample of Jordanian Females

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Abstract: ***In the past 30 years, breast cancer incidence has been through a dramatic increase of 50-100%; which strongly supports the need for breast cancer prevention and screening programs. The purpose of this study is to identify and investigate the knowledge and practice of breast self-examination (BSE) and observing factors that may influence the compliance of (BSE) among a sample of Jordanian students who have family history of breast cancer. the study was conducted among different groups of secondary school female students as well as university female students (total: 178). A form of 12 questions distributed to the involved students containing items on the demographic characteristics of the respondents, knowledge of breast cancer, attitude toward (BSE) and its practice. The results of the study indicate that only 50% of the sample performs (BSE). Most of the students agree on the responsibility of society as a whole to participate in (BSE) to raise the awareness for breast cancer. Participants also showed strong belief in breast lump as a causative factor of breast cancer and it having a significant correlation to identification via (BSE) practice. We aim to enhance the knowledge about breast cancer and encourage (BSE) and breast cancer prevention programs among female students and women as whole.***

1. Introduction

Cancer is a multifactorial disease characterized by uncontrolled growth of tissue and spread of abnormal cells. It causes a major health burden throughout the world. Till the year 1992, there were 9 million cases identified and 5 million patients died because of cancer.

Breast Cancer forms 9.4% mortality rate of all cancer types, as well as being the most common site of cancer and the second most lethal cancer among women in the U.S. Approximately 178,480 cases of invasive breast cancer were diagnosed in 2007 according to the American Cancer Society (ACS). As a matter of a fact, there are estimated 160000 new cases of breast cancer each year with a peak incidence in the age group 55-75 years (1).

In Jordan, breast cancer accounts for 28.3% of all types of cancers according to the National Cancer Record for 1996. It has shown that at least 450 cases of breast cancer have been reported during the year 2016.

With the availability of screening methods including mammograms, breast self-examination and Fine needle aspiration for cytology investigation (FNA), a rise in detection is very well expected.

Breast self-examination (BSE) is a simple, very low cost, non-invasive adjuvant screening method for detection of early breast cancer. 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 which yields in early diagnosis and early treatment resulting in better survival rates (1); For that reason, some experts recommend that women over age 20 to perform a monthly breast self-examination looking for new lumps and other changes (2).

Recent estimates suggest that screening by breast examination has sensitivity of about 54% and specificity of about 94% (1). The cost of both screening mammography and FNA is high compared to the clinical breast self-examination. However, it was found that mortality from breast cancer had fallen by 31% after 6 years for women aged 40-70 at the beginning of the trial of performing BSE (3). Although opinions conflict about the value of (BSE), there is no uniform agreement for breast screening ways (4-6).

The aims of this study consist of the following:

1) To prove that different society sections have different knowledge about breast cancer.
2) To study health believes concerning breast cancer and BSE as well as BSE practice among selected groups of the society.
3) To direct administrators of medical professions toward better preventive measures regarding breast cancer which can be considered as a preventable disease when diagnosed early.

2. Method and Material

Special survey designed for the purpose of this study was adapted. A questionnaire composed of 12 questions was distributed among 3 groups:

1) A selected group from Jordanian secondary school female students who have a family history of breast cancer; aged 17-18 years (group A=48 students).
2) Another selected group from the medical sciences college (Applied Sciences University, Amman –Jordan); 4th and 5th year female students with family history of breast cancer (group B=47 students).
3) A random group from arts, economics and law colleges (Applied Sciences University, Amman –Jordan) were also involved, with family history of breast cancer (group C=83 female students).

The questions were designed to provide description of the knowledge and practice of performing BSE, socio-demographic factors, medical history, the relationship between these variables and the knowledge of breast cancer, as well as the attitude toward BSE.

3. Results

1) It has been found that 49% of students in general think of any breast mass to be malignant, which reflects poor knowledge about the subject as most of breast lumps are benign.
2) We found that only 19% of students were aware of having relatives who suffered from breast cancer. Being a low percentage, this emphasizes on the need for better awareness about BSE and other screening methods.
3) 58% of the questioned students believe that patients, who will die from breast cancer, will do so as a result of misdiagnosis at early stages of the disease, this is a good attitude for most of the studies conducted in AL Hussein Cancer Center (Amman-Jordan) which showed deaths from breast cancer mostly due to diagnosis at late stages.
4) 89% of students think of breast cancer to be a treatable disorder specially if diagnosed very early, this was a remarkable finding (p value<0.05), it reflects a good education about that subject.
5) Students from the groups A and B were very well oriented about the relationship between age, food, socioeconomic status and breast cancer (p value<0.05); on the contrary, only 48% of group C have this belief. This indicates that different society sections have variable knowledge about breast cancer.
6) Only 56% of group A have claimed orientation about BSE, whereas 51% of the group B and 44% of group C do so. This was an amazing finding as both groups B& C are university female students who are highly educated and aware of BSE.
7) We found that only 50% of the whole population questioned are practicing BSE, this figure is comparable to another study achieved among a sample of Jordanian nurses by Abu Salem O., et. al. (5). Which indicates the need for better effort in planning and implementing screening programs to control breast cancer and to identify those at risk.
8) 82% of the students have answered that performing BSE will be very helpful (p value<0.05), and after comparing the results in points 7and 8, we consider students to be less enthusiastic about the BSE due to lack of appropriate knowledge about breast cancer.
9) Also we discovered that 35.4% of group A, 51% of group B, and 57.6% of the group C do not perform BSE as a result of lack of education about BSE which raise the need for more female surgeons and practiced nurses that are interested in creating screening programs and awareness campaigns the society.
10) The response of the 3 groups if whether BSE should be practiced after the age of 20 years were: 81.3%, 72.3% and 66.2% respectively.
11) 48% of group A, 49% of the group B in addition to 52% of group C were the response to whether they have knowledge about mammogram screening programs. These are low figures.
12) Most of the students agreed about the responsibility of society as a whole to be involved in screening for breast cancer and teaching BSE.

4. Discussion

Causes of breast cancer are uncertain and adequate preventive measures are necessary to reduce mortality and morbidity related to this disease.

The majority of breast cancer cases in the western countries are diagnosed as a result of an abnormal findings in screening programs. A significant number of patients present to these programs as a result of abnormal findings while breast self-examination suggesting that screening mammography and breast self-examination both reduces the rate of breast cancer via early detection and facilitates the early management and treatment.
The mortality rate of metastatic breast cancer is roughly one-third of what it was in the 1980s. It is thought that improvement in breast cancer treatment as well as screening are responsible for this reduction (6-10).

Preventive medicine has 3 levels, primary, secondary and tertiary in which we can apply to breast cancer (7-10). Primary prevention in breast cancer refers to reduction in cancer risk and decreasing individual susceptibility toward the disease through health promoting strategies, awareness campaigns, educational seminars and advertisement about the disease. Nutritional and general education can be added to increase the odds of spreading the right awareness.

Secondary prevention aims to identify high risk groups and those with early stages of the disease, which can be summarized in two main points:
1) Screening by BSE, mammography and Ultrasound.
2) Treating the early stages of the disease to limit disabilities and prevent complications.

Tertiary prevention is accomplished by managing permanent or irreversible disabilities to avoid further deterioration, this is in the form of surgery, chemo-radiotherapy and rehabilitation physically and psychologically.

All medical associations and health agencies agree that early detection measures remain the first priority. More than 50% of the total cases diagnosed annually are found in premenopausal patients, creating the need to initiate breast screening programs in this population. Breast self examination is a unique procedure in many ways as it is not expensive or invasive, it involves little time and physical energy, it is simple and depends little on professional help. Even though the effectiveness of BSE remains controversial, studies have shown that 81% of women first noticed symptoms and signs themselves (13). It is agreed that significant number of women find masses when they are bathing or dressing and practicing BSE once monthly may contribute to a women's heightened awareness of what is normal for her (11). 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 (12). In spite of the demographic and

economic challenges posed on the aging population, the increasing in incidence of breast cancer with age strongly urges us to provide well established screening programs especially in for the elderly as multiple diseases intertwine with age and further more complicate each case increasing mortality and morbidity.

Primary breast cancer prevention is seen to be slowly growing. We feel it needs to have more focus even if the secondary prevention screening programs are established, awareness and education will play a major role in aiding women identifying early signs of breast cancer and in hand present to be screened. Early detection of cancer, remains the best in reducing breast cancer mortality. As to what were found in our study, it seems that a lot of women are willing and able to perform BSE if educated about it which may lead to a rise in women presenting to be screened thus dropping down the rates of mortality and morbidity.

It is very important for each woman carefulness to be able to recognize the signs of their own illness by BSE.They should have the knowledge of the clinical signs of breast cancer and the examination technique especially among married women. This is to be performed on regular monthly basis.

Budden in his study has reported that 96% of the nursing students perform BSE during a year but only 46% had the practice regularly as once per month (14). Haji Mahmoodi et al reported from their study among health care female workers that more than 70% had knowledge regarding BSE but only 6% of them were practicing BSE regularly (9). It seems that beliefs and behaviors surrounding breast cancer vary according to several factors such ethnicity, age, education and socioeconomic status. Budden has reported no significant relation between a family history of breast cancer and regular breast self examination practice. Self-efficacy theory and behavioral self-regular 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 (15).

We think that women who anticipated favorable outcome in general where more confident in their breasts. Our study showed that there is strong belief to consider a breast mass to be a causative factor of breast cancer, which was reflected on its significant correlation with BSE practice.

5. Conclusion

In a move to reduce the number of deaths from breast cancer, we have to emphasize on breast cancer awareness campaigns and spread the knowledge of practicing breast self-examination. Establishing screening programs, especially among those at risk has a crucial role in the management and treatment of breast cancer. Early detection remains one of the strongest factors in a better outcome of the disease. The American Cancer Society recommends mammography to be done every year as a screening program for the age group 45-54 (16). We find BSE to be an appropriate alternative for the women not falling in this age group as an early mechanism of screening.

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