BREAST CANCER AWARENESS AND PRACTICES OF BREAST SELF-EXAMINATION (BSE) AMONG FEMALE STUDENTS OF UNIMAS

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This project is submitted in partial fulfillment of the requirements for the degree of Bachelor of Science with Honours

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This descriptive study was conducted to investigate the level of breast cancer awareness and BSE practices among female students of UNIMAS by a convenience sampling method. A total of 61 females students ranged between 20 to 26 years old, participated in this study. Data was collected through a self-administered questionnaire and was later analyzed by using the Statistical Package for Social Sciences (SPSS) Version 11.5.

In this study it was found that the female students (N=61) of UNIMAS have a high level of breast cancer awareness (62.3%) and a low percentage of regular breast self-examination (BSE) practices (44%). Chi-square test shows a significant relationship between the regular BSE practices and the level of breast cancer awareness (p=0.046).

The study also indicates that the main source of breast cancer information was from mass-media (n=44, 72.1%) and majority said their friends contributed fairly to their knowledge (n=32, 52.5%). Nurses were chosen by majority of the participants (n=21, 34.4%) as the least contributors on breast cancer information. Whereas, the sources of BSE information is also the same as in the findings found in sources of breast cancer information. The source of BSE information amongst the participants was mostly from mass media (n=31, 50.8%), friends were also said to be the fairest contributors on BSE information (n=29, 47.5%). But, here the doctors were said as the least contributors by most of the participants (n=22, 36.1%).

Most of the participants, n=22 out of n=25 that were currently practicing BSE, chose to do BSE because “BSE is recommended by the Ministry of Health”. The second favourite reason, n=21 was due to the “breast cancer worries.” The third most popular reason, n=18 was “confidence that BSE is effective to detect the abnormalities”.

The most barrier to do BSE were “lack of time” and “forgot”, in which n=15 said this. The second common reason was “lack of self-confidence in doing BSE” and “Because of no symptoms currently”.

In a conclusion, there is a need to improve the breast cancer awareness among UNIMAS female students as well as promoting regular BSE practices, which indicates awareness of personal breast health. Nurses play the important roles in promoting prevention and knowledge of breast cancer as well as the promotion of regular BSE.
CHAPTER I
INTRODUCTION

1.0 Introduction

Breast cancer is the second leading cause of death in women presently, and according to World Health Organization (WHO), more than 1.2 million people will be diagnosed with breast cancer ("General information on breast cancer", 2004) in 2005 worldwide. According to Gerard (2002), breast cancer is one of the top 10 leading cancers in Malaysia. In Sarawak during 1998, breast cancer was the most common cancer (Gerard, 2002) and majority were associated with late presentation, resulting in delayed treatment (Gerard, 2002; Ranjit, 2003; Rosemawati & Sallehudin, 2001). The earliest age of breast cancer according to Rosemawati and Sallehudin (2001) in "Cancer Registration in Malaysia" is 20 years old and the incidence shows a steep rise from the age of 40-45 years old.

Although breast cancer is less common before 40 years old, younger women tend to have more aggressive breast cancer compared to older women ("General information on breast cancer", 2004). The key to survive from breast cancer is the early detection and treatment ("General information on breast cancer", 2004), awareness of this disease and exhibiting a good understanding about breast cancer. It is believed that BSE makes women more "breast aware" - looking for abnormalities that may be cancerous, which may in turn lead to an earlier diagnosis (Austoker, 2003). In addition to that, BSE is simple, painless and cheap (Sterns, 1998). Early detection through BSE then followed by Clinical Breast Examination (CBE) and mammography screening can enable 5 years survival rates. The "General information on breast cancer" (2004),
states that the 5 years survival rate for women younger than 45 years old is at least 81% and it increases as the age increases. This is to explain that there is no single tool that is perfect, thus BSE must be completed with other tools of CBE and mammography (Nekhlyudov & Fletcher, 2001, Osuch, 2002 and Manasciewicz, 2003).

Studies have been done by Reshmi, Renu, Kamentha, Puvan, & Reshma, (2002) and also by McMenamin, et al. (2005) to assess the breast cancer awareness. They found that majority of the women in this study had heard of breast cancer and were aware that a positive family history is associated with breast cancer. However, McMenamin et al. (2005) found that even though they were aware of breast cancer, they exhibited a poor understanding of breast cancer. Whereas Reshmi et al. (2002), found that the awareness level was just 49% in spite of majority of them having heard of breast cancer.

However recently, the final result of two studies done in Canada and Shanghai, China stated that BSE is not an effective method to screen and reduce the mortality rate of breast cancer, when the study revealed that the mortality rate between the two groups of BSE-instruction and no BSE instruction was the same (Baxter, with the Canadian Task Force on Preventive Health Care, 2001 and Thomas, Gao, Ray, Wang, Allison, Chen et al., 2002). In the midst of the controversial issues, BSE was not stopped, due to the beliefs that more in depth studies are needed to evaluate the effectiveness of BSE.
1.1 Statement of the problem

The earliest breast cancer identified was at the young age of 20 years old (Rosemawati & Sallehuddin, 2001). Although breast cancer is less common before 40 years old, younger women tend to have more aggressive breast cancer when compared to older women ("General information on breast cancer", 2004). Commonly, the women presented with late detection. If the detection and diagnosis had been done earlier, the survival rate would not be so bad.

Few studies have found a satisfactory to high percentage of breast cancer awareness level. In spite of aware of breast cancer subjects, a high percentage of respondents did not practice the preventive measures by means of regular BSE.

Also, there were other studies that discovered high percentage of irregular BSE and or women who never do BSE even though they are aware of it. The factors of influence to do BSE had been ruled out in most of the studies but there are little findings on the reasons for non-compliance and the barriers of BSE. It is expected that the results would be beneficial in developing interventions to promote regular practice of BSE by overcoming the barriers found later. Other than that, this study also aims to assess the relationship between the level of breast cancer awareness and the BSE practices.
1.2 Objectives of the study

This study is to determine the level of breast cancer awareness and BSE practices among female students of UNIMAS. Specifically, this study is to:

1.2.1 Describe the demographic characteristics of UNIMAS female students.

1.2.2 Determine the general information of the participants.

1.2.3 Determine the level of breast cancer awareness among female students of UNIMAS.

1.2.4 Determine the practices of BSE among female students of UNIMAS.

1.2.5 Determine the sources of BSE information among female students of UNIMAS.

1.2.6 Determine the factors that influence BSE performances among female students of UNIMAS.

1.2.7 Determine the barriers to BSE practices among female students of UNIMAS.

1.2.8 Determine the duration of each BSE performed among those who know how to do BSE and regular BSE practices.

1.2.9 Determine the relationship between the awareness level of breast cancer and demographic characteristics of female UNIMAS students.

1.3.0 Determine the relationship between the awareness level of breast cancer and the family history of breast cancer among participants that have a history of breast cancer.

1.3.1 Determine the relationship between BSE practices and the awareness level of breast cancer among female students of UNIMAS.
1.3 Research Questions

Specifically, this study was proposed to answer the following questions:

1.3.1 What are the demographic characteristics of UNIMAS female students?

1.3.2 What is the general information of the participants?

1.3.3 What is the level of breast cancer awareness among female students of UNIMAS?

1.3.4 What are the practices of BSE among female students of UNIMAS?

1.3.5 What are the sources of BSE information among female students of UNIMAS?

1.3.6 What are the factors that influence BSE performances among female students of UNIMAS?

1.3.7 What are the barriers to BSE practices among female students of UNIMAS?

1.3.8 How long each BSE is performed among those who know how to do BSE and regular BSE practices?

1.3.9 What is the relationship between the awareness level of breast cancer and demographic characteristics of female UNIMAS students?

1.4.0 What is the relationship between the awareness level of breast cancer and the family history of breast cancer among participants that have a history of breast cancer?

1.4.1 What is the relationship between BSE practices and the awareness level of breast cancer among female students of UNIMAS?
1.4 Significance of the study

The study is expected to contribute on:

- Although there have been many studies done regarding breast cancer awareness and BSE practices conducted worldwide, there is still a limited number of studies in Malaysia which have been published widely.

- To provide research-based evidence on the reasons and barriers of BSE. Also, to provide the evidence what are the common sources of breast cancer information and BSE information that may be beneficial in the future breast cancer and BSE awareness campaign.

1.5 Definitions of terms

Breast self-examination is defined as looking for abnormalities and changes (rather than by chance) through regular and systematic checking of the breast (Fish & Wilkinson, 2003).

Whereas regular BSE practice is defined as a process of palpating one’s own breast at least once a month (Chee et al. 2003; Jirojwong & MacLennan, 2003). Awareness of breast cancer is exhibited by an adequate and a good understanding on breast cancer subject, besides knowing of its detective and preventive methods.
1.6 Limitation of the study

This study would have several limitations. First, the results may show limited generalization due to the small sample of study that involved only 61 participants in the main campus of UNIMAS in Kota Samarahan which composed of various faculties.

Second, it was conducted in one university only; therefore it would not be able to generalize to all female university students in Malaysia as a whole.

Third, most of the items asked in the questionnaire were closed-ended questions that enabled the participants to express their original answer.

In addition to this, the participants were only among university students, which generally have the same level of education and within the same age range (small age range) and mostly were single which again causing in limited generalization.

1.7 Summary

In this chapter, the introduction of the study had been outlined; the problems which related to the awareness of breast cancer and BSE practices among female students of UNIMAS. A number of research questions have been set out; the significance of the study noted; important terms were defined and finally the limitations of the study acknowledged. A detailed discussion of the relevant literature reviewed follows in Chapter II.
CHAPTER II

LITERATURE REVIEW

2.0 Introduction

In this chapter, the review of the relevant literature is presented to highlight the breast cancer awareness level, the BSE practices, sources of both breast cancer and BSE information, factors that influence of BSE practices as well as the barriers to BSE practices.

2.1 Level of breast cancer awareness

Awareness of breast cancer is essential to all women, that is showed by good understanding of the cancer and practices of early detection to diagnose it. A study conducted by Reshmi et al. (2002) with the title “To assess the awareness of breast cancer amongst female students living in Rhodes University residence”, found that 98% of the participants had heard of breast cancer but the overall level of breast cancer awareness was only 47%. The female students aged between 18 to 25 years old were selected randomly and a self-administered questionnaire which applied closed ended questions was distributed. The questionnaire encompassed the demographic data, besides three specific questions which were used to directly asses the awareness of the participants on the matter of breast cancer. If they are able to answer the questions correctly “do you know how to do BSE?”, “how often you do BSE?” and “how long to do BSE at each time?” then the student is said to be aware of breast cancer. Other than that, there were questions to assess the understanding on breast cancer such as; factors, risks and symptoms of breast cancer. However, of the 98% that had heard of breast cancer, only 66% knew how to do BSE. Also, of
the 66% who knew of BSE, only 41% knew the correct frequency that BSE should be performed monthly and 73% knew the correct duration of BSE which is 5 minutes and above. However in a study done by Jamalludin (2003), it was found that overall, 70% of a total of 139 women knew how to do BSE, a slightly higher percentage compared to the findings from Reshmi et al. (2003). However, the limitation for the study done by Reshmi et al. (2002) was that there was no written data on the total of participants; all results were already converted to the percentage readings.

Regarding the understanding of breast cancer that reflects awareness of breast cancer, both the studies done by Reshmi et al. (2002) and McMenamin et al. (2005) found that their participants understand that family history plays the important role of the breast cancer, but only 44% (a low percentage) of the Rhodes University students (Reshmi et al. 2002) were aware of this. While a study done by McMenamin (2005) with the title “A survey of breast cancer awareness and knowledge in a western population: lots of light but little illumination” found that 92% of the female participants and 77% of the male participants were aware that family history is a factor of breast cancer, (a higher percentage found). The study done by McMenamin et al. (2005) that included a total of 2355 participants of both genders, 53% (1250) were female and 47% (1105) were male. It was a qualitative research, and the participants were chosen as who were generally active and well, aged between 17 to over 50 years old, from the urban and rural sites within all 26 counties of the Irish Republic. The survey which was designed to assess the awareness of breast cancer and knowledge about the risk factors, screening, symptoms and treatments, also contained of questions relating to the risk of developing and surviving of breast cancer. The results were that, about 87% of females and 74% of males had seen or heard of breast cancer in
the recent past, a slightly lower percentage when compared to the results found by Reshmi et al. (2002), which was 98%. Majority of the participants in the McMenamin et al. (2005) study had received information on breast cancer through printed or electronic media. TV or Radio were the major source of breast cancer information (48% female and 44% male) whereas, 59% of the participants in the study by Reshmi et al. (2002) received their breast cancer information mainly from the printed media; magazines, newspapers and pamphlets. Both the studies by Reshmi et al. (2002) and McMenamin (2005) appeared to have little factual knowledge regarding breast cancer risk factors.

2.2 Prevalence of Breast self-examination (BSE)

A cross-sectional study was carried out by Jirojwong and MacLennan (2003) on the “Health beliefs, perceived self efficacy and BSE among Thai migrants in Brisbane, Australia. There was a total of 145 participants, enlisted through a snowball sampling method. The Health Belief Model was used to identify the factors that influenced BSE practices. The close-ended questionnaires were distributed and among the items asked were the regularity of BSE practices and factors associated with BSE practices. The results showed a low percentage of women practiced BSE regularly, indicated by (24.6%, n=34). Regular BSE as defined in this study is “palpate self breast at least once a month”. Whereas, 62% (n=85) were irregular performers and 13.7 %, (n=19) never do BSE. It can be concluded that there was a low percentage of women who regularly practice BSE and thus, there is a need to strengthen the level of breast cancer awareness and BSE knowledge among those Thai migrants in Russia.
Whereas, in a cross-sectional study done in Malaysia titled “Factors related to the practice of BSE and pap smear screening among Malaysian women workers in selected electronic factories” by Chee et al. (2003). A total of 1720 women were randomly chosen from 10 factory workers, ranging from the age of 17 to 55 years old, were administered with the self-administered questionnaires in the Malay language. The items asked were in relation to practice and knowledge of BSE. Regular BSE as defined in this study is ‘doing BSE at least once a month’. The results were as follow: a high percentage of (79.1%) women had heard of BSE and out of these, only 53.0% knew how to do BSE. However, only 44.8% had ever done the self-examination while only 24.4% reported a regular monthly basis of BSE, which was a similar finding to Jirowong and MacLennan (2003). Thus, there is a need for further research to study the factors of non-compliance and barriers to BSE practices among these women. The limitation of this study was, it is cannot be used to generalize to all the female factory workers in Malaysia, as the involved factories in this study were only in West Malaysia.

In another study done in Malaysia, conducted by Jamalludin (2003) on the “Knowledge, Attitude and Practices on breast cancer among female population in Kampung Alur Batu, Kuantan” found that out of 139 women studied with Malay race, is the majority (96.4%), and with most being young adult women (50.7%). Married women were 77.1% and more than 80% had a formal education. Guided-interview questionnaires were applied. The results were that 80% of the women had heard about BSE, 70% knew the correct method of BSE, 62% had done BSE and only 43% did BSE regularly. The results found by Jamalludin were slightly different. There was a slightly higher percentage of women who knew how to do, had done and regularly BSE
practice among the women in Kampung Alur Batu, Kuantan compared to the other results that were discussed before.

Whereby in the study carried out in Taiwan by Lu (2001), titled “Effectiveness of breast self-examination nursing interventions for Taiwanese community target group”, a total of 198 beauticians, with the age ranging from 22 to 57 years old (M=28 ± 8.6) in a specific suburban area of Taipei were involved in the study. The BSE questionnaire which comprises of 4 parts about influences to BSE and its frequency was distributed. From the total of 166 valid surveys, only 20 respondents (10%) practiced BSE monthly out of 66.5%, (n=146) who performed BSE. The finding showed the lowest percentage of regular BSE of all when compared to the other studies that were previously mentioned. This study had exhibited non-compliance as evidenced by a high percentage of women who have ever done BSE, but a lower number of women regularly practice BSE. Thus, there is a need for further research on BSE compliance and the barriers to practices BSE even though the knowledge level is good.

In a cross-sectional study done in Hong Kong, China by Suk-Yee (1998), on the factors associated with breast self-examination among 124 Chinese women in Hong Kong were chosen through convenience sampling method ranging from the age of 19 to 57 years old (M=35 years old). The study reported that majority of women rated health as the most important value, however no evidence shows that they are actively engaged in maintaining or improving their health as indicated by the low BSE frequency. Forty-eight percent (n=59) had practiced BSE, but only 16% (n=9) did BSE monthly, while 9% had not performed BSE in the past 12 months. This
study also showed a low percentage of breast cancer awareness, as evidenced by a lack of knowledge of BSE and regular BSE practices. It can be concluded that a further attempt for public health education regarding breast cancer awareness and BSE promotion is required, as it is an early detective method to rule out any abnormalities changes of the breast.

2.3 Factors of Breast self-examination (BSE) practices

In a cross-sectional study carried out by Jirowong and MacLennan (2003) on the “Health beliefs, perceived self efficacy and BSE among Thai migrants in Brisbane”, they found out that sociodemographic characteristics such as the age, educational level, occupation and marital status and health behavior were not associated with the regularity of BSE practices. In spite of that, it was found that women who were currently smoking more commonly regularly practice BSE, as compared to the ex-smokers and non-smokers. From the Health Belief Model, those who regularly practice BSE were those who perceived themselves as having a high susceptibility to breast cancer.

A study was conducted in Malaysia on “Factors related to the practice of BSE and pap smear screening among Malaysian women workers in selected electronic factories” by Chee et al. (2003). The respondents’ age range was 17 to 55 years old. Those participants were equally divided between single (48.7%) and married (47%). More than half, 53.7% were less than 30 years old during the study. Increased BSE practice was found in older women (older than 30 years old), those who were more highly educated, married, pregnant, had young children, have had a medical examination in the last 5 years, had a Pap Smear within the last 3 years and gave a
correct response to BSE. The findings varied significantly when compared to the study done among Thai migrants in Brisbane, where Jirojwong and MacLennan (2003) found that those factors of age, educational level and marital status were not associated with increased BSE practices. However, the difference between these two studies was that Jirojwong and MacLennan (2003) applied the Health Belief Model in their study.

In another study done in Malaysia by Jamalludin (2003) on the “Knowledge, Attitude and Practices on breast cancer among female population in Kampung Alur Batu, Kuantan” found out that those who were likely to perform monthly BSE were closely related to the age (p<0.001) which is more to younger women, higher level of education (p<0.001), married (p<0.001), and the monthly per capita income (p=0.04). Whereas, there was no significant relationship with the frequency of medical consultation (p=0.07), family history of breast cancer (p=0.1), ethnicity (p=0.79) and finally the employment status (p=0.87). The study by Jamalludin differed from the findings found by Chee et al. (2003), where Jamalluddin found that BSE was not influenced by the frequency of medical consultations and BSE is performed more among the younger participants, but a higher level of education is associated with the knowledge and practice of BSE in both studies.

Whereas the study conducted in Taiwan by Lu (2001), titled “Effectiveness of breast self-examination nursing interventions for Taiwanese community target group”, found that the factors influencing BSE practices were social, therefore it must be initially directed (ordered / encouraged) by the health care professionals. Secondly, it must have the participation from the