KNOWLEDGE AND PRACTICE OF BREAST SELF EXAMINATION AMONG FEMALE UNDERGRADUATE STUDENTS IN UNIVERSITI MALAYSIA SARAWAK (UNIMAS)

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ABSTRACT

The purpose of this study is to assess the level of knowledge and practice of breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS). This is a descriptive study and simple random sampling technique was adopted to select the respondents for the survey. Self administered questionnaire was used as a research instrument. One hundred and thirty three respondents returned the completed questionnaires and data were analyzed using Statistical Package for Social Sciences (SPSS) version 15.0. The age range of the respondents was between 19 to 26 years old with the mean age of 21.5 (SD ± 1.464). Eighty eight respondents (66.2%) answered correctly that breast self examination is a method to examine one's own breasts to detect abnormalities of the breasts. Only 22 of the respondents (16.5%) knew that breast self examination is not the only method for early detection of breast cancer. Less than half of respondents (38.3%) knew that breast self examination should be performed regularly that is every month. Out of 133 respondents, only 45.9% have good knowledge about breast self examination. Only 68 respondents (51.1%) ever performed breast self examination and out of 68, 48 respondents (36.1%) reported that they practice breast self examination for the past 12 months. Only three of the respondents (2.3%) practice breast self examination regularly that is 10 to 12 times in the past 12 months. This study found out that the level of knowledge and practice of breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS) is poor.

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INTRODUCTION

BACKGROUND OF STUDY

Breast cancer is an abnormal growth of cells which begins in breast tissue and it is the second leading cause of cancer deaths among women worldwide (American Cancer Society, 2007). Pride Foundation (2008) reported that, breast cancer afflicts an estimated figure of more than one million women in the world each year. In 2003, 64% of new cases of breast cancer affected women between the ages of 40 to 60 years old. Nearly 40 % of the new cases identified each year were already in the very advanced stages of the disease. Breast cancer affects one in 19 women in Malaysia and it was the commonest cancer in women amongst all races from the age of 20 years in Malaysia for 2003 to 2005. According to Department of Radiotherapy and Oncology Sarawak General Hospital (2001) breast cancer is the second out of ten leading cancers in Sarawak after nasopharyngeal cancer.

American Cancer Society (2007) reported that women aged 20 – 24 years had the lowest breast cancer incidence rate and 97 % of breast cancer deaths occurred in women aged 40 and older. Even though breast cancer is less common before 40 years old, younger women tend to have more aggressive breast cancer (Epromed Services, 2008). One of the best ways of ensuring that breast cancer in a woman is to

be breast aware, that is understanding and knowing how your breast look and feel like under normal circumstances, so that women are able to seek early medical advice if they have any changes in either breast. Women can always perform breast self examination to detect any changes with their breasts. According to Ringash and Canadian Task Force on Preventive Health Care cited in Sakine, Nevin and Fatma (2009) most breast cancer masses are detected by women themselves. Ali, Mariam, Iraj, et al. (2008) stated that, unlike mammography and clinical breast examination, breast self examination is simple, inexpensive and teaching is possible between health professionals and women. Most importantly, breast self examination raises awareness about breast cancer in women. As with most cancers, the earlier breast cancer is detected and diagnosed, the better the chances of successful treatment. Cancer Research UK (2007) reported that, breast cancer survival rates are better the earlier the cancer is diagnosed. Around 9 out of 10 of women diagnosed with stage I breast cancer survives beyond five years. Survival rate drops to around 1 out of 10 diagnosed with stage IV.

Breast self examination should be used as an early detection of breast cancer which represents the key approach for reducing mortality from this disease. According to American Cancer Society (2007) finding and reporting breast changes early through breast self examination offers women the best opportunity for reducing breast cancer deaths. Therefore, the knowledge and practice of breast self examination is very important as everyone needs to know that early detection saves lives.

The purpose of this study is to assess the level of knowledge and practice of breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS). In addition, this study also aimed to examine the factors that influence students to practice breast self examination and to identify the barriers that hinder the practice of breast self examination.

PROBLEM STATEMENT

Ministry of Health (2002) reported that breast cancer is the third most common cancer worldwide and is the most common cancer in women. Since 1991, breast cancer has been the second leading cause of cancer admissions in Ministry of Health hospitals. Deaths due to breast cancer are in fourth place accounting for 6 to 8 percent of all cancer deaths.

National Cancer Registry Malaysia (2003) reported that in 2003, there were 3738 female breast cancer cases that were reported, making it the most commonly diagnosed cancer in women. It accounted for 31.0 % of newly diagnosed female cases. Breast cancer was the commonest cancer in all ethnic groups and all age groups in females from the age of 15 years. The overall Age Standardized Rate (ASR) was 46.2 per 100,000 populations. In Sarawak, according to Department of

Radiotherapy and Oncology Sarawak General Hospital (2001) breast cancer is the second out of ten leading cancers after nasopharyngeal cancer.

Mortality rates are highest for women aged 20 – 59, followed by women aged 60 – 79 and those older than 80 respectively (Sakine et al. 2008). According to Imaginis cited in Sakine et al. (2008) the incidence of breast cancer is low in younger women however when the younger women are diagnosed, the cancer tends to progress rapidly.

Breast self examination is a simple method and women can perform by themselves. Women who perform breast self examination are more familiar with their breasts potentially making them more aware of breasts problems as they will seek medical advice earlier. Although the efficacy of breast self examination may be questionable, when performed accurately and regularly, it provides women with the opportunity to notice differences in breast tissue and to detect lumps at an early stage (Wheeler cited in Sakine et al. 2008).

Therefore, it is important to have adequate knowledge and regular practice of breast self examination. The aim of doing breast self examination is to detect early signs of breast cancer. Inadequate knowledge will lead to poor practice or else women who have good knowledge but having irregular practice will cause the purpose of breast self examination as a tool for early detection of breast cancer could not be achieved.

RESEARCH QUESTIONS

The following research questions are addressed:

1. What is the level of knowledge about breast self examination among female undergraduates students in Universiti Malaysia Sarawak (UNIMAS)?
2. What is the frequency of practicing breast self examination among female undergraduates students in Universiti Malaysia Sarawak (UNIMAS)?
3. What are the factors that influence performance of breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS)?
4. What are the reasons for not performing breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS)?
5. What is the relationship between the socio – demographic variables with the level of knowledge on breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS)?
6. What is the relationship between level of knowledge about breast self examination and practice of breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS)?

RESEARCH OBJECTIVES

General objectives:

This study aim to examine the level of knowledge and practice of breast self examination among female undergraduate students in Universiti Malaysia Sarawak (UNIMAS).

Specific objectives:

1. To assess the level of knowledge of breast self examination among the respondents.
2. To examine the frequency of practice of breast self examination among the respondents.
3. To examine the factors that influence performance of breast self examination among the respondents.
4. To examine the reasons for not performing breast self examination among the respondents.
5. To examine the relationship between the socio - demographic variables with the level of knowledge on breast self examination among the respondents.
6. To examine the relationship between the level of knowledge about breast self examination and practice of breast self examination among the respondents.

SIGNIFICANCE OF THE STUDY

Findings from this research provide data about the level of knowledge and practice of breast self examination among female university students. If the results found that the respondents have poor level of knowledge and poor practice, further implementation could be done to instill knowledge to improve it. If the result of level of knowledge and practice of breast self examination is good, health education still need to be done as learning is a continuous process. Any new update of information regarding breast self examination shall be informed to students. In addition, this study assesses for any gap of knowledge and practice of breast self examination among female university students.

Furthermore, as recommended by American Cancer Society (2007) breast self examination should be started as early as 20's. Young adults at this age should find out more information about breast self examination because it is one of the screening methods for breast cancer. They should practice breast self examination before they reach the age of common occurrence of the disease. It is important to emphasize to them that practicing breast self examination regularly enable them to detect any changes with their breasts and seek medical advice earlier.

The results of this study are of great importance as it may assist health professionals in planning health education for female university students. Also, from this research

findings, health screening which include breast self examination education could be included as one of the annual activities in Universiti Malaysia Sarawak (UNIMAS) calendar. The purpose of this health education is to convey knowledge about the importance of breast self examination and its relation with breast cancer.

OPERATIONAL DEFINITION

Breast self examination

According to National Cancer Institute (n.d.) breast self examination is an exam done by a woman to her own breasts to check for lumps or other changes. In this study, breast self examination is described as female undergraduate students in Universiti Malaysia Sarawak (UNIMAS) use their hands to inspect and palpate their breasts and the surrounding areas for any abnormalities.

Knowledge on breast self examination

According to Chioma and Asuzu (2007) knowledge of breast self examination is the fact of having information about breast self examination. In this study, female undergraduate students in Universiti Malaysia Sarawak (UNIMAS) can gain their knowledge on breast self examination from various sources and it is very important as it may influence them to practice breast self examination.

Practice of breast self examination

Chee, Rashidah, Shamsuddin and Intan (2003) defined practice of breast self examination as a process of palpating one's own breast at least once a month. Hence, in this study, practise of breast self examination is considered as female undergraduate students in Universiti Malaysia Sarawak (UNIMAS) perform breast examination on their own breasts. It is important to do regular practice of breast self examination as they will become familiarized with their own breasts and be aware of changes that occur with their breasts.

LITERATURE REVIEW

Knowledge on breast self examination

Knowledge about breast cancer is very essential in every woman as it arise their level of awareness about breast cancer and practice on early detection of that cancer. A study conducted by Ali, Mariam, Iraj, et al. (2008) with the title of "Breast cancer in Iran: need for greater women awareness of warning signs and effective screening methods", found that 64% of the respondents had heard about the disease and 61% believed that breast cancer is relatively a common disease among women in Iran. The respondents' knowledge of breast cancer symptoms was also studied. Most women (44%) perceived a painless mass as a breast cancer symptom. Overall the study findings indicate that 61% of the respondents knew about breast cancer screening methods, 31% knew about breast self-examination, 21% about clinical examination and 9% about mammography. The remaining 39% reported that they know nothing about breast cancer screening methods. A total of 1402 women were interviewed. Most of the respondents were married (85%) and 90% did not have any family history of breast problems. This was a population-based survey carried out in Tehran, Iran. Data were collected via a structured questionnaire containing 15 questions on demographic status, history of personal and family breast problems,

subjective knowledge about breast cancer covering its symptoms, the screening methods and practice of breast self-examination. Out of 64% that had heard about breast cancer, only 17% of women said that they were conducting regular breast self-examination. The limitation for the study done by Ali et al. (2008) was that the researcher did not assess whether the participants knew the correct method of breast self examination even though the respondents reported they performed regular breast self examination. However, study done by Jamalludin (2003) with the title "Knowledge, attitude and practice on breast cancer among female population of Alur Batu Village, Kuantan and its related factors" found that, more than 80% out of 139 respondents had heard about breast self examination. Almost 70% knew the correct method of doing breast self examination but only 62% had ever done it, and 43% did it regularly, at least once a month. This percentage of knowledge and practice of breast self examination is higher than findings from Ali et al. (2008).

In Umran, Senay, Habibe, et al. (2005) study entitled "Peer education project on breast self – examination in Izmir, Turkey", 60 out of 160 students knew only one symptom of breast cancer while 38 knew two and the rest of the 62 did not know any. Answers given by those who knew the symptoms are swelling, cyst in breast, pain in the breast, hardness in the breast, regression of a nipple and disfigurement. The symptoms stated by students in this study are quite similar with Salaudeen, Akande and Musa (2009) study where the answers are presence of lump in the breast, changes in the nipple, size of breast and discolouration. On the other hand Chioma and Asuzu, (2007) assess about students' knowledge on breast cancer

without asking about the symptoms. However, the results shows that 195 out of 228 students knew about breast cancer while only 33 did not knew anything about breast cancer. There are several answers given to describe cancer which include cancer as growth, as diseases, as lump in the breast and as tumors. More than half of the respondents (63.2%) believe that cancers could be prevented while 25% answered in the negative. There are few students who did not know whether breast cancer could be prevented or not. From the findings of these literatures, there are still a number of students who did not have adequate knowledge about breast cancer in general and the symptoms that may present in breast cancer.

A cross –sectional study was carried out by Salaudeen et al. (2009) on "Knowledge and attitudes to breast cancer and breast self examination among female undergraduates in a state in Nigeria" with the total of 700 respondents. The study was conducted at the University of Ilorin and Kwara State Polytechnic, Ilorin in Kwara State Nigeria. Systematic random sampling technique was adopted for subject selection and self administered questionnaire was used for the survey. The results showed 573 respondents (81.9%) had heard of breast self examination but most respondents did not know what to look for during breast self examination. Only 38.9% respondents mentioned changes in the nipple as one of the things to look for during breast self examination. Checking the size of the breast and discolouration were mentioned by 37.4% and 38.1% respondents respectively. Even though most of the respondents had heard of breast self examination, only 209 out of 700 respondents (29.8%) reported they knew how to perform it. This study has

demonstrated low level of knowledge on breast self examination. Strategies need to be implemented to improve early breast cancer detection.

A study had been conducted by Awatif (2006) with the title "Knowledge of breast cancer and its risk and protective factors among women in Riyadh". This community-based descriptive study was conducted on a sample of 864 adult women during a health education campaign held in October 2003 in the Ladies Kingdom Mall in Riyadh. Women willing to participate, regardless of their age or educational level were included in the study. Knowledge on risk factors and protective factors for breast cancer was moderate. For the knowledge on breast self examination, (82%) of the respondents knew about breast self examination but only (41.2%) had performed breast self examination. This study has similarity with the study conducted by Jamalludin (2003) whereby the respondents had good knowledge about breast self examination but they had poor practice of breast self examination.

Importance of breast self examination

Breast self examination is very important as a tool of early detection of breast cancer. There are various answers given by the respondents in different research about the importance of breast self examination. Umran et al. (2005) found out that 70 out of 160 students stated that breast self examination is very useful to identify breast cancer, 38 mentioned for early diagnosis, 28 to maintain health and 22 did not know. While study done by Chioma and Asuzu, (2007) with the title "Knowledge, attitude and practice of self – breast examination among the female students of the University of Ibadan, Nigeria" reported that, 122 out of 228 students mentioned that breast self

examination is used for detection of lump in the breast, 4 stated about learn to diagnose, 39 mentioned to detect breast cancer, 11 to maintain balance of one's self and unfortunately 52 did not give any response. From these findings, there are still respondents who did not know the importance of breast self examination. This indicate that a few students still have insufficient knowledge about breast self examination. Even though these two studies obtained the information about the importance of breast self examination but the researchers did not assess the knowledge on risk factors of breast cancer which could enhanced the understanding of importance of breast self examination among the respondents.

Source of information about breast self examination

There are various sources of breast self examination which include mass media, electronic media, family and health workers. A cross – sectional study was carried out by Parisa, Mirnalini, Nor Afiah and Hejar (2008) on the "Knowledge and behavior regarding breast cancer screening among female teachers in Selangor, Malaysia" found that the main sources of information on breast cancer and breast cancer early detection methods were the mass media followed by brochures, friends and doctors or nurses. This finding is quite similar to research done by Ali et al (2008) whereby the main sources of information about breast cancer were mass media (48%) and followed by friends (20%) but the most obvious differences between these two studies are a very low proportion of women indicated that they have received any information from their doctors. Primary health care professionals

should play an important role in conveying correct information regarding breast cancer.

Salaudeen et al. (2009) found out that more than half of the study respondents (81.9%) had heard about breast self examination. Most of the respondents (23.6%) reported that television as their first source of information followed by (18.6%) health workers, (18.2%) radio, (15.0%) print media and (6.5%) from their friends. However, from the result, Umran et al. (2005) found that the commonest sources are newspapers and magazines (19.6%). On the other hand, Chioma and Asuzu, (2007) did not collect data for source of information about breast self examination but they obtain the data for source of information about breast cancer. They found out that the sources are radio, television, health workers, school, church and the commonest source of breast cancer is television. Hence, from these literatures the commonest source of information about breast self examination and breast cancer are print and electronic media. This is probably because these sources are easily found, more attractive as those medias may include visual aids as well as providing proper and correct information. Furthermore, with the level of education of the respondents, they were able to read newspapers and other relevant documents, watch television and browse internet for health information.

Practice of breast self examination

Practice of breast self examination is very important as women can detect changes that occur in their breasts. Practice of breast self examination could be regular or irregular among women. There are few studies that revealed low and average to high practice of breast self examination. A study was done by Ozgul, Aklime and Arzu (2008) with the title "Effects of peer and group education on knowledge, beliefs and breast self – examination practice among university students in Turkey". This study included a total of 193 female university students, of whom 59 were assigned to peer education and 134 to group education. Data collected at baseline and after six months included socio demographic characteristics, knowledge of breast cancer and breast self examination and performance of breast self examination. Effects of peer and group education was using Champion's Health Belief Model Scale. This study found that the rate of regular breast self examination increased from 25.9% to 55.7% six months after peer education ($p < 0.001$) and from 45.5% to 62.2% after group education ($p < 0.001$). The rates of performance of breast self examination increased significantly following both peer and group education. Increased frequency of breast self examination following peer and group education can be attributed to increased knowledge about and skills for breast self examination, increased perceived benefits and confidence, and decreased barriers. This study revealed that peer and group education were equally effective in reaching the aims of increased knowledge about and frequency of breast self examination. Therefore, nurses and other health care

providers may choose either peer or group education to increase breast awareness among young women.

There are very few students who practiced breast self examination. Umran et al. (2005) discovered that only 46 out of 160 respondents perform breast self examination. Among 46 students, 8 conducted an examination once a month, 7 of them conducted breast self examination once a week, 3 once in every 6 months and 28 could not remember when they perform breast self examination. Similarly, Chioma and Asuzu, (2007) found only 25 out of 228 respondents actually practiced breast self examination regularly. This is a very small number compared to the whole population study. In addition, Salaudeen et al. (2009) reported that, the respondents who practised breast self examination were 213 out of 700 students. The frequency of practice of breast self examination also varied. Thirty of them practiced weekly, 35 monthly, 40 every 2 – 4 month, 30 every 5 – 6 month, 50 every 7 – 11 month and 28 mentioned other time interval. From these research, it indicates that the practice of breast self examination was poor and students did not perform breast self examination. The time interval was too long for one examination to another and this may cause students could not familiarized themselves with their own breast condition. This shows that efforts are needed to encourage the practice of breast self examination among female students.