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Knowledge, Attitude and Practice of Breast Self-Examination among Janitors at Public University Malaysia

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ABSTRACT

Breast cancer is the most prevalent form of cancer worldwide including Malaysia. Breast self-examination is recommended as a screening method for early detection of breast cancer. The purpose of this cross-sectional study is to determine the level of knowledge, attitude and practice of breast self-examination among janitors at Health Campus, Universiti Sains Malaysia. A descriptive cross-sectional study was conducted by using simple random sampling, a total of 74 female janitors were recruited into this study. Data were collected using self-administered questionnaire consisting sociodemographic characteristic and level of knowledge, attitude and practice towards breast self-examination. Among participants, 29% (n=22) have good knowledge regarding breast self-examination, 91.9% (n=68) have positive attitude and 51.4% (n=38) have high practice of breast self-examination. There was no significant association between knowledge of breast self-examination and practice of breast self-examination. The study shows attitude of breast self-examination have significant association between practices of breast self-examination. There was no association between socio-demographic characteristic and practice of breast self-examination. This study is crucial because it will provide healthcare professionals the early data, they need to design an effective public awareness campaign that could result in early diagnosis and treatment, which might improve survival among breast cancer patients.

Contribution/Originality: This study contributes to the health providers a baseline data to improve knowledge regarding breast self-examination among female janitors. Based on the study findings, it showed that they have positive attitude and high practice regarding breast self-examination. Even though majority of them shows good results, there are still some of them has low practice regarding breast self-examination. Since breast self-examination is very crucial to prevent breast cancer, it is important for the community to have a good knowledge, positive attitude and high practice of breast self-examination.

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1. Introduction

Breast cancer is characterized by uncontrollable and abnormally growing of cells known as malignant cells that develop in the breast. The metastasis takes places when the malignant cells invade the surrounding healthy cells and spread by entering blood vessels or lymph vessels that further branch throughout the body (American Cancer Society, 2017). As breast cancer is the most common cancer among women worldwide in all levels of modernization.

In 2020, 685,000 women globally died from breast cancer in and there were more than 2.3 million new cases. One woman is diagnosed with breast cancer somewhere in the world every 14 seconds (World Health Organization, 2021). Breast cancer in Malaysia women occurs more commonly in middle age group of women, aged between 40 and 49 years old (Rosmawati, 2010). Breast cancer in the early stages typically do not produce symptoms but as the tumour enlarges, symptoms produced include painless lump in the breast, lump under the armpit, breast pain, swelling or thickness of the breast's skin, spontaneous discharge of the nipple particularly if bloody and erosion or inversion in the nipple (Nde et al, 2015).

Breast cancer management has a significant impact on health care resources and the affected individual. If detected early, breast cancer can be treated effectively. Early detection and prompt treatment are the best protection. Early detection of breast cancer has an important part in decreasing mortality and morbidity. It includes breast self-examination, clinical breast examination and mammography, and these are usually done in combination.

Several studies have revealed that a positive association exists between the performance of breast self-examination and the detection of breast cancer. Its purpose is to make women familiar with both the appearance and feel of their breasts as early as possible so that they will be able to easily detect changes in their breast (Nde et al., 2015). Breast self-examination is a check-up that easily to be conducted, culturally acceptable, religious friendly and cost-effective way to detect problems affecting the breast tissue. Thus, by doing breast self-examination regularly and start as early as can be very important in order to decrease the incidence of breast cancer along with to increase people awareness about breast cancer.

Breast self-examination is the first step to detect any abnormalities at the breast and it is a simple non-invasive procedure, cheap and safe time (Hassan, Ghazi, Mohamed, & Jasmin, 2017). This breast self-examination also can help people to be familiar with their breast and report to the healthcare professionals if there has abnormalities changes occur and it can prevent them from being diagnosed with a late stage of breast cancer (Erdem & Toktaş, 2016). Hence, this study aims to determine the knowledge, attitude and practice of the janitors in Health Campus, in order to generate data that may be useful in designing intervention aimed at screening awareness of doing breast self-examination as a routine of screening method for the early detection of breast cancer.

2. Literature Review

Breast cancer is one of the common leading causes of death among women in Malaysia. Statistically show that it is second cancer from the ranked after cardiovascular disease. (Hassan et al., 2017). The crude incidence was estimated to be 34.86 per 100,000

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populations and breast cancer in Malaysian women occurs more commonly in younger women, aged between 40 and 49 years. The similar high prevalent among middle age group also was noted in Nigeria in which the mean age for breast cancer in Nigeria was 48 years (Rosmawati, 2010).

The survival rate of breast cancer patients vary greatly worldwide, ranging from 80% or over in North America, Sweden and Japan to around 60% in middle-income countries and below 40% in low-income countries. It has been reported that five-year survival rate was 56% for late detection and reached to 85% for early detection of breast cancer women (Rosmawati, 2010). The earlier women can detected of the breast cancer, the better the effectiveness of the treatment and the likelihood of survival within the population (Nde et al., 2015). Besides, its plays an important role in improving breast cancer outcome and survival with early detection of the breast cancer (World Health Organization, 2021).

2.1. Breast Self-examination

Breast self-examination is a "procedure in which a woman inspects and examines her breasts and their accessory structures for evidence of change that could indicate an abnormal process. It is one of the three tests the American Cancer Society (ACS) recommends in order to help detect breast cancer in its earliest stages" (Safiya et al., 2017). Breast self-examination is one of the screening methods that involved for an early detection of breast cancer other than mammography, clinical breast examination (CBE), magnetic resonance imaging (MRI), ultrasound and also biopsy. Particularly according to WHO (2021) the only breast cancer screening method that has proven to be effective is mammography screening, but it is only recommended for high resource settings and very costly for one procedure. However, the practice of has been seen to empower women, taking responsibility for their own health as this practices not consuming money and very safe and gentle.

In this situation, WHO (2021) explained that breast self-examination is one of the necessary screening techniques for early detection of breast cancer. The procedure, though simple, cheap, non-invasive and non-consuming the time, can only be practiced with the right way to enhance it and reach the required goal. Breast self-examination is the recommended method in developing countries because it is easy, convenient, private, and safe and requires no specific equipment its purpose is to make women familiar with both the appearance and feel of their breasts as early as possible, so that they will be able to easily detect changes in their breast. Several studies have revealed that a positive association exists between the performance of breast self-examination and detection of breast cancer (Nde et al., 2015).

In a number of low and middle income and emerging economy countries, breast self-examination is monthly recommended for an option for women starting in their 20s as the main goal that can be achieved from performing breast self-examination in early age is provide an opportunity for women to know how their breasts normally feel and notice any changes in their breasts (American Cancer Society, 2017).

Furthermore, Malaysia country like other developing countries where national mammography screening program is limited available due to limited resources (Rosmawati, 2010). Hence breast self-examination becomes an acceptable option in increasing breast health awareness and as the main goal to be achieved to give opportunity for women know how their breasts normally feel and notice any changes in

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their breasts. Previous study shown that in a study performed in Ghana, 70% of women who were diagnosed with breast cancer were already in an advanced stage. Although breast self-examination is a simple, quick and cost-free procedure, it appears that many women either perform it incorrectly or not at all (Nde et al., 2015).

In different community study involving a diverse women group conducted in United States, the rates of performing monthly breast self-examination ranged from 29% to 63% and 19.0% to 43.2% of women in Nigeria were reported practicing breast self-examination (Rosmawati, 2010). A study conducted in Jordan showed that 52 percent of the study sample perform breast self-examination, among them 30 percent perform breast self-examination regularly (Hassan et al., 2017). In fact, Malaysia study reported a very low proportion rate of women performing breast self-examination. finding study come out of 1,303 women registered and attending a Malaysian well person's clinic programme at Ipoh Hospital, only 1.3% (17 patients) practiced breast self-examination regularly, and only 2.9% of the 207 women with a past or family history of other cancers done it regularly (Rosmawati, 2010). This problem can have a real effect of a women lifestyle. Hence healthcare providers need to come out with a meaningful idea to let all women in Malaysia to make breast self-examination as their routine of life.

2.2. Knowledge of breast self-examination

Knowledge can be something broad and specific. Most of people gain knowledge every day, could be by watching, reading or hearing. In this field of study most women do not have specific knowledge about breast self-examination. related to that, women also did not apply the knowledge in their life style even they had learn and knew before. The key to emphasize is that practice of breast self-examination was significantly associated with knowledge level. according to Nde et al. (2015), lack of knowledge on breast self-examination was cited as the main reason for not performing breast self-examination. the most common reason for not doing breast self-examination among students was they don't have knowledge on how breast self-examination is done, when to start and the best time to do breast self-examination.

Although many researchers have been done among females to assess their breast self-examination practice, the researchers have not come across any study concerning knowledge level about breast self-examination and breast self-examination performing among students who they are very young from non-medical faculties (Hassan et al., 2017). Rosmawati (2010) found out that the proportion of respondents with good knowledge score was about 38%. attitude showed the highest proportion with the good score, whereas practice showed the lowest proportion with good score. There was significant positive correlation between knowledge and attitude score, knowledge and practice score as well as attitude and practice score.

2.3. Attitude of breast self-examination

In the study of knowledge, attitude and practices regarding breast self-examination, shown that there is a positive correlation between attitude and practices (Pengpid & Peltzer, 2014). The general attitude of the respondents in this study towards breast self-examination was moderate, implying that just a little motivation may easily sway their attitude towards highly in favor of practicing breast self-examination. Motivation to practice breast self-examination could be through the organization of health campaigns and publicity as was observed in this study. Fear of detecting breast cancer was one of the

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factors cited by the respondents for not practicing breast self-examination. Educating these young women could also help instill some courage in them (Nde et al., 2015). Study done by Safiya et al. (2017) regarding the attitude of breast self-examination, more than half (58.08%) of the respondents had never carried out a breast self-examination previously, the percentage of medical and non-medical students' percentage was 50.30% and 64.29%, respectively, while 42.19% had practiced breast self-examination, the percentage of medical and non-medical students was 49.7% and 35.7%, respectively. This proportion is not that high when compared with the studies carried out in Nigeria, where 45.2% having never carried out breast self-examination, while 54.8% having practiced breast self-examination. This shows a big percentage of the student did not have positive attitude toward performing breast self-examination as monthly routine in their life time.

Different from other finding from Rosmawati (2010) where attitude seems to be good in the higher proportion of respondents (73.3%). This is an indicator of positive medical help-seeking behavior among the respondents especially pertaining to the high mean score for the item 'all women should do breast self-examination, 'poor preference to seek traditional healers', 'I really care about my breast' and 'I'm not afraid to think about the breast cancer'. This contrast with previous study as stated that fear is a potential barrier for not practicing breast self-examination. It can be inferred from this study that only 2% had negative attitude towards breast self-examination, 15% were indifferent while 78% had positive attitude (Omoyeni & Oluwafeyikemi, 2014).

In Malaysian breast cancer patients and poor practicing breast self-examination seen 1.3% to 2.9% in over 70% of women attended a well person's clinic programmed (Rosmawati, 2010). a total mean percent score for the knowledge of 60.4% portray the level of community ignorance about breast self-examination especially amongst the high risk group. based on 70% cut-off point out of total mean score, 61.6% of the respondents were categorized as having poor knowledge. poor knowledge was found to be related with early sign of breast cancer, regularity of practicing breast self-examination, method and position of performing breast self-examination and the most suitable time to perform it (Nde et al., 2015). In fact it was reported that the knowledge regarding breast self-examination also not sufficient among the adolescent in turkey where 13.2% only have knowledge about appropriate time for breast self-examination, 21.8% know regarding the frequency of breast self-examination and 26.6% know on the correct procedure of breast self-examination (Agboola et al., 2009).

3. Methodology

A descriptive, cross-sectional study was conducted. The data collection involved a distribution of questionnaire to 74 respondents among female janitors which are working at Health Campus, Universiti Sains Malaysia. The respondents were selected as respondent by using simple random sampling technique. The questionnaire consists of socio demographic characteristics, 15 question regarding the knowledge level, 13 questions to determine attitude and seven questions to determine the practice of breast self-examination that was adapted from the study done by Rosmawati (2010). Data for this study was collected after receiving letter of approval from Research Ethics Committee (Human) of Universiti Sains Malaysia (USM/JEPeM/18110709) and dean of School of Health Sciences, Universiti Sains Malaysia before conducting the study. The respondent that fulfills the inclusion criteria was approached and written consent was obtained from respondents that are willing to take part in the study and completed questionnaire. Data

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were collected from the respondents who completed the self-administered questionnaire, and were then processed using SPSS, version 24.0.

4. Result

A total number of female janitors participated in this study is 74. Table 1 summarizes the socio-demographic data of the respondents. Majority of the respondents are age between 41 to 50 years old 52.7% (n=39), followed by respondents of age 51 and above 29.7% (n=22), followed by respondents of age 31 to 40 9.5% (n=7) and respondents of age below 30 years old 8.1% (n=6). Majority of the respondents are married 74.3% (n=55), 10.8% (n=8) divorced, 2.7% (n=2) single, and 1.2% (n=9) widowed. Besides, for level of education, majority of the respondents have fully completed secondary level of education 51.4% (n=38) while 1.4% (n=1) have diploma. Majority female janitors having monthly salary range 600-1000 95.9% (n=71) followed by 1000 – Above 4.1% (n=3).

Table 1: Demographic Profile of the Respondents (n=74)

Variable	n (%)
Age (years)	
Below – 30	6 (8.1%)
31 – 40	7 (9.5%)
41 – 50	39 (52.7%)
51 and above	22 (29.7%)
Marital Status	
Single	2 (2.7%)
Married	55 (74.3%)
Divorced	8 (10.8%)
Widowed	9 (1.2%)
Level of education	
No formal education	2 (2.7%)
UPSR	16 (21.6%)
PMR	17 (23.0%)
SPM	38 (51.4%)
Diploma	1(1.4%)
Monthly Income	
Below – 500	0 (0.0%)
600 – 1000	71 (95.9%)
1000 – Above	3 (4.1%)

4.1. Knowledge towards breast self-examination

The level of knowledge regarding breast self-examination among female janitors at Health Campus, USM was measured by using the knowledge score. In this study, the knowledge questions consist of 15 questions. For each question, the respondents need to choose one answer. 2 marks is given for correct answer and 1 mark is given for incorrect response. Table 2 shows the level of respondent's knowledge regarding breast self-examination.

Table 2: Level of Knowledge Regarding Breast Self-Examination (n=74)

Knowledge	n (%)
Good	2 (2.7)
Moderate	20 (27.0)
Poor	52 (70.3)

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Majority of the respondents had poor knowledge regarding breast self-examination 70.3% (n=52), 27.0% (n=20) had moderate knowledge and 2.7% (n=2) of the respondents had good knowledge.

4.2. Attitude Regarding Breast Self-Examination

In this study, the attitude regarding breast self-examination consists of 13 questions in which each question is rated on Likert scale of '0', '1', '2', '3' and '4' for 'strongly not agree', 'not agree', 'neutral', 'agree' and 'strongly agree', respectively according to their attitude. Table 3 shows the respondent's attitude level regarding breast self-examination. Majority of the respondents has positive attitude regarding breast self-examination 91.9% (n=68) while 8.1% (n=6) has poor attitude regarding breast self-examination.

Table 3: Level of Attitude Regarding Breast Self-Examination (n=74)

Attitude	n (%)
Negative	6 (8.1)
Positive	68 (91.9)

4.3. Practice Regarding Breast Self-Examination

The practice regarding breast self-examination consists of 7 questions in which each question is rated on Likert scale of '0', '1', '2', '3' and '4' is given for 'never', 'seldom', 'neutral', 'frequent' and 'always', respectively. Table 4 shows 51.4% (n=38) of the respondents had high practice while 48.6% (n=36) had poor practice regarding breast self-examination.

Table 4: Level of Practice Regarding Breast Self-Examination (n=74)

Practice	n (%)
Low (negative)	36 (48.6%)
High (positive)	(51.4%)

5. Discussion

This descriptive, cross-sectional study was conducted to assess the knowledge, attitude and practice of female janitors in Universiti Sains Malaysia regarding breast self-examination. The findings of this study shows that 52 (70.3%) of the female janitors in Health Campus, USM had poor knowledge, 68 (91.9%) had positive attitude and 38 (51.4%) had high practice regarding breast self-examination. Similar result with the study by Doshi et al. (2012) found that the overall knowledge of breast self-examination in this population was rather very poor among Indian college-going students in Rajasthan wherein 28% examined their breasts rarely or never. This poor knowledge reflects on the fact that adequate public education is essential to facilitate early detection of breast cancer. This finding was inconsistent with previous studies that revealed good knowledge will lead to positive attitude and good practice of breast self-examination (Singh & Turuk, 2017; Abolfotouh et al., 2015; Nde et al., 2015).

However, according to Alice and O (2014), mentioned that although large number practice breast self-examination, they did it incorrectly. The result of low breast self-examination knowledge in this study could be explained by the fact that janitors is majority of non-

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educated person and they do not have high knowledge of accessibility for information. Therefore, they do not have right and massive information about breast self-examination. In addition, Sujindra and Elamurugan (2015), reported that individual's attitude about breast self-examination benefits is related to practice of breast self-examination. In spite of the fact that, knowledge and attitude among the study population are similar to the previous studies, percentage of those who were properly practicing breast self-examination was less (51.4%). This show that provision of information is sufficient to obtain breast self-examination initiation but not necessarily adequate to maintain the practice.

Current study suggested that knowledge did not predict behavior. Whereby, decrease in attitude and practice may be due to ignorance towards breast self-examination practice (Doshi et al., 2012). Based on study from (Chang, Choi, Kim, & Song, 2014), individuals who are even highly knowledgeable about breast self-examination may or may not be highly motivated to perform breast self-examination. Thus, low motivation would lead a person to have negative and low practice of breast self-examination. Low practice of breast self-examination generally would be attributed to deficit in individual's level of breast self-examination related to information, motivation and attitude.

6. Conclusion

The study of knowledge, attitude and practice of breast self-examination among female janitors shows poor knowledge level towards breast self-examination. Female janitors possess positive attitude and high practice regarding breast self-examination. The study findings emphasized the need for strengthen primary health care in health education with the aimed to create awareness and responsible toward health. Appropriate public awareness could lead to early detection, treatment which may lead to better survival among breast cancer patient.

Ethics Approval and Consent to Participate

The study protocol was approved by the Research Ethics Committee (Human) of Universiti Sains Malaysia, Kubang Kerian (USM/JEPeM/18110709).

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Conflict of Interests

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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