

Knowledge And Practice Towards The Importance Of Screening Mammography Among Women In Putrajaya

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ABSTRACT

Objective: To determine the knowledge and practice of screening mammography among women between the ages of 40-60 years in Putrajaya.

Materials and method: A sample of 153 Putrajaya female were interviewed using structured questionnaire

Result: In this study, the respondents mostly are at the age of 40-44 years old, housewives, married, possessed a tertiary education level. The prevalence of mammography among women above 40 years old in Putrajaya is 30%. The decision to do mammography had been made by the participants themselves 41.7%, while by company is 25.0% and physician is 33.3%. Moreover, the highest motive for undergoing mammography was fear of getting cancer (41.7%). The reasons for never experiencing mammography among respondents were they had no breast problems 57.1%, followed by they were very busy 17.9%, they never heard of mammogram 7.1% and they don't feel old 7.1%. Only 5% have family members with breast cancer. Most of them have no family history of breast cancer (95%).

Conclusion: Based on our study done, the practice and knowledge are alarmingly low. Based on the findings, there is a need to focus on creating awareness in order to achieve a better practice and knowledge status of screening mammography. This can be done by providing educational campaigns, free screening mammography booths in community centres and most importantly, by the physician itself.

Keywords: Screening mammography, Breast cancer

1.0 INTRODUCTION

Breast cancer is the most common cancer in women and the second leading cause of death among women (2). The commonest presenting symptom was a lump in the breast felt by the woman itself. The important warning signs to look for are such as, lump, thickening, continuous pain in one part of the breast, changes in size or lowering of one breast, discharge from the nipples, rashes over nipple, changes in shape or position of nipple, nipple inversion, any skin changes like puckering or dimpling or any swelling or pain under the armpit or around the collar bones (5). Breast cancer evaluation should be an ordered inquiry that begins with symptoms and a general clinical history. This is followed by a sequence that has become formalized as triple assessment, which includes the following components, clinical examination, imaging (usually mammography, ultrasonography, or both) and needle biopsy. The most essential examination needed to be done is screening mammography (SM) for the detection of early breast cancer. SM refers to x-ray examination of the breast for women who are asymptomatic, that is, have no apparent breast problems. Estimates of SM sensitivity range from 75 to 90%, with specificity ranging from 90 to 95% (1).

Epidemiological studies have reported the commonest age at presentation of breast cancer is between 40-49 years, with just over 50% of the cases under the age of 50 years, 16.8% below 40, and 2% under 30 (6). Based on a Ministry of Health survey done in 1996, 46.9% of women have done breast examinations either breast self-examination or mammography. The number of women that had a mammogram is only 3.7%. The highest screening rates are amongst 20-49 years (6). Al-Naggar and Yuri reported that the knowledge about mammogram in 200 women from the general population in Malaysia that participated; the majority knew about mammogram (68%). In their study the practice of mammography screening among the general population was 25.5% which is low (2).

From all the research reviews, the most recent finding is from MyMammo study in 2015. Norhashimah Hassan, Weang Kee Ho, Shivaani Mariapun and Soo Hwang Teo (2015). This research has shown that the avenues for women to become aware of and be motivated to participate in opportunistic screening is different in high-income and low socio-economic women. MyMammo study has a number of limitations. First, the study is conducted in a private hospital and study participants were asked to contribute a blood sample for research to determine genetic determinants of mammographic density. It is unknown whether these would have affected participation levels and the profiles of participating women. Second, as this is an opportunistic screening program, findings from this study cannot be extrapolated to the general population as it only represents a subset of women that came forward for screening.

It is intended that the findings of this research project will be used by local and regional authorities to assess the level of knowledge and practice about the importance of screening mammography in women above 40 year old. We aimed in this study to evaluate the level of knowledge and practice on breast cancer screening through mammography among women in Putrajaya.

2.0 METHOD

2.1 Participants

153 women that lives in Putrajaya at the age of 40 - 60 years old were considered in this study. They came from various Precinct in Putrajaya such as Precinct 5, 8, 9, 11, 14, 15, 16, 18 and 20.

2.2 Procedure

A cross-sectional survey will be conducted in Putrajaya community centres. The participants will be selected to answer the questionnaire themselves. Also, in order to enhance the efficacy of the survey, online forms/ questionnaires are being distributed as well via social media (Whatsapp). Random sampling techniques will be used to select community centres from each precinct. The sampling method of the respondents will be consecutive sampling where every person meeting the inclusion criteria will be selected until 153 sample size is achieved.

3.0 STATISTICAL ANALYSIS

Data will be analyzed using Statistical Package for Social Sciences (SPSS) Version 23.0. Frequency distribution tables will be generated and a chi-squared test is to assess the significance of differences between categories. Significant variables will be analyzed further using multiple logistic regression with the attitude towards screening mammography as the dependent variable.

4.0 RESULTS

The response rate of our research was 26%. The questionnaire was distributed and a total of 40 out of 153 respondents answered. Among all respondents, most are at the age of 40-44 years old 30%, with housewives as the highest frequency of occupation 42.5% and 82.5% are married. 70% of them possessed a tertiary education level. 62.5% of respondents had 1-4 number of children, 72.5% had their first menstruation at the age of 12-14 years old and mostly has not reached menopause 72.5%. Higher number of participants never used contraceptives 62.5% compared to those who had and highest frequency of

BMI was overweight (52.5%). Table 4.1.1 to Table 4.1.6 tabulates the respondents' knowledge and practice.

Table 4.1.1 Experience with mammography

	Frequency (n)	Percentage (%)
Yes	12	30.0
No	28	70.0
TOTAL	40	100

Regarding experience with mammography, only 30% of the participants previously had experienced mammography.

Table 4.1.2 Decision to do mammography

	Frequency (n)	Percentage (%)
Myself	5	41.7
Company	3	25.0
Physician	4	33.3
Total	12	100

The decision to do mammography had been made by 41.7% of the participants themselves, while by company is 25.0% and physician is 33.3%.

Table 4.1.3 Reason of underwent mammography

Reason done mammography	Frequency (n)	Percentage (%)
Medical check-up	7	58.3
Fear of getting cancer	5	41.7

Somebody I know was diagnosed with cancer	0	0.0
I have/had cancer	0	0.0
TOTAL	12	100

There are 30.0% of the total respondents that have done mammography before. Among them, 58.3% did the mammography because of routine medical check-up while 41.7% have undergone mammography due to fear of getting cancer.

Table 4.1.4 Reasons of not doing mammography

Reason	Frequency (n)	Percentage (%)
I didn't suffer from any problems / complain in breast	16	57.1
Im very busy	5	17.9
Never heard	2	7.1
Not old	2	7.1
Fear of discovering I have cancer	1	3.6
Fear of x-ray	1	3.6
Too old	1	3.6
Total	28	100

The most common reason for never experiencing mammography among respondents was they had no breast problems 57.1% followed by they were very busy 17.9%, never heard 7.1% and they don't feel old 7.1%.

Table 4.2.5 Source of information regarding mammography

	Frequency (n)	Percentage (%)
Media	2	5.0
Physician	10	25.0
Personal Beliefs	4	10.0
Husband	0	0.0
Relative	1	2.5
Educational campaigns	2	5.0
None	21	52.5
Total	40	100

Among the respondents, 47.5% had stated their source of information about mammography. The sources consisted of 25% stating that they knew mammography through their physician, 10% have personal knowledge, 5% from the media, 5% from educational campaigns and 2.5% knew from their relatives.

Table 4.2.6 Family members with breast cancer

Family member	Frequency	Percentage
Sister	2	5.0
None	38	95.0
Total	40	100

Among all respondents, only two of them have family members with breast cancer and both were their sister (5%). Most of them have no family history of breast cancer (95%).

5.0 DISCUSSION

Breast cancer is the most common cancer in women and the second leading cause of death among women. Mammography has been an essential test to diagnose breast cancer and for early detection of breast cancer. In this study, the knowledge and practice about screening mammography of women in Putrajaya were analyzed. The National Health and Morbidity Survey (NHMS) 2019, reported that a staggering 75% of women above the age of 40 in Malaysia have never had a mammogram, an X-ray picture of the breast, in their lifetime.

In this study, the respondents mostly are at the age of 40-44 years old, housewives, married, possessed a tertiary education level. This is similar to the study done in Shah Alam, the majority of the participants were younger than 50 years (65.5%) and married (94.55%). In the national study, a higher number of respondents were among those between the age of 55 to 59 years-old, married, possessed secondary educational level, and housewives, compared to the other categories in their respective group (NHMS, 2019).

The current experience of mammography among women above 40 years old in Putrajaya is 30% which correlates with NHMS (2019), 25.0% of women age 40 years and above reported to have ever done a mammogram. According to a cross-sectional study carried out in Selangor, Malaysia (2014), only 13.2% (n: 59 out of 447) of all the study participants had ever done mammography screening. (Yusof, et al., 2014). Another study done in Shah Alam, Selangor, 15% had a mammogram once in their life. (Al-Naggar RA, Bobryshev YV, et al., 2012). Overall studies show the practice of mammogram screening among women above 40 years in Malaysia is generally low.

In this study, the decision to do mammography had been made by the participants themselves 41.7%, while by company is 25.0% and physician is 33.3%. Similarly to the research in Eastern province in Saudi Arabia, the decision was made by 28 (48.3%) of the participants themselves, while for the remaining number the decision had been made by others. However, in another study, 17.5% decided to do the mammogram because of doctor's advice (Al-Naggar RA, et al., 2012). In conclusion, self-drive to do mammograms are found to be the main deciding factor for the women for having mammography.

In this study the highest motive for undergoing mammography was fear of getting cancer (41.7%). Similar to a study conducted in Saudi Arabia (2001), 62.9% of whom had it done for fear of

cancer and 15.7% because they knew of people who had cancer (Al-Mulhim F. A., 2001). This shows that fear of getting cancer has greatly influenced their decision to do screening mammography.

This study shows common reasons for never experiencing mammography among respondents were they had no breast problems 57.1%, followed by they were very busy 17.9%, they never heard of mammogram 7.1% and they don't feel old 7.1%. This is almost similar to the study conducted in Eastern province of Saudi Arabia (2001), the reasons for non-motivation were that they had no breast problems (66.9%), were afraid of discovering that they had cancer (13.2%), or were too busy (10.0%) (Al-Mulhim F. A., 2001). Based on the MyMammo study (2015), 30% (209) cited perception that they are not at risk, 20 % (139) cited fear of painful mammography, and 10 % (68) cited cost, as barriers of attending opportunistic screening. (Hassan, et al., 2015). This shows that no breast problems or not at risk is the most common barrier of not going for mammogram screening among women.

In this study, 25% know mammogram through their physician, 10% have personal knowledge, 5% from the media, 5% from educational campaigns and 2.5% from their relatives. A previous study done in Saudi Arabia (2001), stated the source of knowledge consisted of the mass media (31.3%), private doctors (16.4%), personal knowledge and conviction (40.6%), husband (7.0%), and another relative (4.7%) (Al-Mulhim F. A., 2001). However, a similar study conducted in Ankara, Turkey (2012), the most common reasons for current mammogram screening were physician recommendation after clinical breast examination (50.5%; N=266) and regular breast cancer screening (42.3%; N=223) (Guvenc, et. al, 2012). This reveals that physicians play an important role than the mass media in encouraging women to undergo mammograms as a preventive measure of breast cancer.

Only 5% have family members with breast cancer. Most of them have no family history of breast cancer (95%). Compared to NHMS 2019 where the prevalence of having family members with breast cancer was 13.1%. In another study, 16.5% of participants reported to have a family history of breast cancer (Al-Naggar RA, et al., 2012). The inconsistency of the result from current study may be influenced by low response rate. However, we can conclude that the ratio of respondents with family history of breast cancer is less than one to six.

This study has few limitations. First, the response rate was low at 26% which current data is not comparable with other studies. Low response rate was due to limited selection of respondents with

narrow age ranges which makes it a challenge to recruit them. There is also interviewer bias when we interview the respondents in different phrases. To avoid this, we should standardize the interviewer's interaction with the respondents. Besides that, due to the Covid-19 pandemic, we were unable to continue our study method. To overcome, we changed to an online questionnaire and the responses were increasing but slow. Online questionnaires may have a selection bias whereas respondents are recruited by convenience. However, it was the only way to obtain information during the pandemic.

Future study should include broader socio-demographic data such as ethnicity to represent Malaysia and household income that may influence knowledge and practice of screening mammography. In the future study, standardized protocols for data collection, including training of study personnel & the interviewer's interaction, can minimize inter-observer variability when the researchers are gathering and entering data. Other than that, the next researchers have to emphasize on selection bias as the respondents must originate from the same general population that is being researched.

6.0 CONCLUSION

Screening mammography (SM) is an important tool for detecting early breast cancer. In many countries, screening programs are mandatory for women over 50 years of age. In our study, a good knowledge and practice of screening were evaluated by a questionnaire that consists of three sections which are sociodemographic data, practice and knowledge of screening mammography. However, we could not assess completely the knowledge and practice status of the women that are living in Putrajaya currently due to Covid-19 pandemic.

Moreover, based on our study done, the practice and knowledge are alarmingly low. Based on the findings, there is a need to focus on creating awareness in order to achieve a better practice and knowledge status of screening mammography. This can be done by providing educational campaigns, free screening mammography booths in community centres and most importantly, by the physician itself.

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