

ORIGINAL ARTICLE

DO ELDERLY WOMEN IN MALAYSIA GO FOR MAMMOGRAM SCREENING?

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ABSTRACT

Despite the debates of the benefits of continuing mammography screening among elderly women, studies in Malaysia have shown that the prevalence of breast examination declines after age 45 years and for mammogram per se, the prevalence of examination increases until age of 64. This study aims to determine the prevalence of mammogram screening among elderly women in Hulu Langat, Selangor and its relationship with factors such as demographic factors, family history of breast cancer, perceived health status, perceived general psychological factor and lifestyle factors. Data used were from a cross sectional study of health status among community in Hulu Langat area by the Department of Community Health, Universiti Kebangsaan Malaysia carried out from the year 1998 till 2002. However this paper focused on the database involving elderly women age 60 and above. The sample population was 652. The mean (standard deviation) age was 67.17 (5.995). Only 8.3% of the elderly women claimed to ever had mammogram screening done. Hence, the prevalence of mammogram screening is still low among elderly women in Hulu Langat. Having family history of breast cancer ($p < 0.001$) and perceived positive psychological status ($p=0.003$) had shown significant associations with mammogram screening among them. It is therefore important for researcher to further look into the reasons behind this and qualitative exploration is highly recommended.

Keywords : mammogram screening, elderly, Malaysia.

INTRODUCTION

Breast cancer is the most common cancer among women in Malaysia and worldwide. From the worldwide statistics, the highest incidence was reported in developed countries. The incidence rate averages from 95 per 100,000 in developed countries to 20 per 100,000 in developing countries. However in developing countries, breast cancer patients were usually diagnosed in advanced stage and this led to higher mortality. It had been estimated that by the age of 50, one out of 50 women will develop breast cancer and increased to one in 10 by the age of 80¹.

In Malaysia, among 21,773 cancer cases reported to the National Cancer Registry, the most common cancer regardless of gender was breast cancer and it accounted for 16.5% (3525)². Among women population, breast cancer was the most predominant regardless of ethnic and accounted for 29.9%. Even in the older age group (50 years and above), breast cancer was still predominant among women. Breast cancer incidence was higher among Chinese, followed by Indian and Malay. Like other developing countries, delay in diagnosis of breast cancer was also high in Malaysia. According to Norsaadah et al (2011)³, 72.6% of patients delayed diagnosis of breast

cancer for three months and 45.5% for six months.

One unique characteristic of this type of cancer is that it is curable, if detected during its early stage of development. However, most cancer patients are detected at later stages due to failure to perform early screening. Early diagnosis of breast cancer is very important in treatment of the disease as it can improve survival rate and improve patient's quality of life (American Cancer Society, 2007)⁴. Previous studies have shown that screening programs can significantly decrease the mortality of breast cancer (Blanks et al. 2000⁵; Anderson et al. 2006⁶). The recommended methods for early detection of breast cancer are breast self-examination (BSE), mammography and clinical breast examination (CBE) (American Cancer Society, 2007⁴). Treatment of breast cancer is most successful when the cancer is discovered early, and although some recent debate exists about the effectiveness of mammography in reducing mortality from breast cancer (U.S. Preventive Services Task Force, 2009⁷), mammography remains the most effective method of early detection (Humphrey, Helfand, Chan, & Woolf, 2002⁸). Consequently, many public health agencies (i.e., American Cancer Society, National Cancer Institute, U.S. Preventive Services Task Force⁷) encourage women to obtain regular mammography screenings.

Like other developing countries the prevalence of mammogram screening in Malaysia was only 7.6% in 2006⁹. The statistic of mammogram screening in developing countries like Malaysia, Philippines, Thailand, India and Africa were between less than 5% or between 5-14.9%. This is much lower when compared to developed countries like France, Sweden and United Kingdom where the prevalence of mammogram screening at these region was between 80-95%¹⁰.

The purpose of this article is to report the prevalence and determinants of mammogram screening among elderly women in Hulu Langat Selangor. Factors studied were family history of breast cancer, perceived health status, perceived general psychological status, lifestyle (diet and physical activity) and also socio-demographic characteristics. Mammogram screening was chosen as the outcome.

METHODOLOGY

This article analysed data from a cross sectional study on Health Risk Assessment carried out by the Department of Community Health, Universiti Kebangsaan Malaysia from 1998-2002. The study had been approved by UKM ethics committee. The sample population of the original study consisted of 8000 population from all age groups. However for the purpose of this article, only data of 652 elderly women aged 60 years and above were analysed. Data were analysed using SPSS 19.0 for Windows. Descriptive statistics were calculated to report sample characteristics. Pearson's Chi Square was used with significant level of 5% to find the relationship between the outcome i.e mammogram screening and independent categorical variables which are family history, perceived health status, perceived general psychological status and lifestyle. With regards to dietary intake, respondents were asked if they consider their dietary consumption as of high or low fibre and cholesterol content. Perceived health status was categorised as good or poor. Those who said moderate were grouped into poor. As for perceived general psychosocial status, only respondents' perception whether they felt happy or not were considered. Hence no validation was done.

RESULT

Table 1 shows some selected socio-demographic characteristics of the elderly female respondents. Majority (87.0%) were in the young old group. The mean age was 67.2 ± 5.9 . Most of the respondents (91.9%) reported to have been married. They were either currently still married or had been divorced or their partner already passed away. In terms of ethnicity, the majority (79.6%) were Malays.

Table1: Demographic characteristics (n=652)

Characteristic	n	%
Age group		
Young old (60-74)	567	87.0
middle old (>75)	85	13.0
Marital status		
never married	53	8.1
ever married	599	91.9
Ethnic		
Malay	519	79.6
Non-Malay	133	20.4

On further analysis of some selected family and lifestyle characteristics of the respondents, only a minority (4.0%) claimed to have family history of breast cancer (Table 2). Slightly more than half (59.8%) reported performing physical activities (exercise) at least three times a week. With regards to dietary intake, almost all (99.1%) claimed that they take high fibre diet. However, when asked about cholesterol diet, majority (94%) fell into the high cholesterol diet group. When asked to rate their physical health status, less than half (47.1%) claimed it as good. A bigger proportion (72.2%) appeared to claim their psychosocial status as happy life. In terms of mammogram screening, only 8.3% claimed having had it done. Among those who had had screening done, majority (59.3%) had it done three or more years ago. Almost one third (29.6%) had had it done about a year or less (refer Table 2).

Table 2: Family and lifestyle characteristics (n=652)

Characteristic	n	%
Family history of breast cancer		
Yes	26	4.0
No	626	96.0
Physical activity		
< 3 times per week	262	40.2
more than 3 times per week	390	59.8
Fibre intake		
Yes	646	99.1
No	6	0.9
High cholestrol intake		
Yes	613	94
No	39	6.0
Perceived health status		
good	307	47.1
poor	345	52.9
Perceived general psychosocial status		
happy life	473	72.2
sometimes happy	179	27.8

Table 3 shows the association between all the factors studied with the practice of mammogram screening. Having family history of breast cancer and perceived general psychological status as sometimes happy were found to be significantly associated with carrying out mammogram screening.

Table3:Factors Associated With Mammogram Screening (n=652)

Factor	Mammogram				χ^2	p-value
	Yes		No			
	N	%	N	%		
Age						
Young old (60-74 years old)	51	9.0	516	91.0	2.907	0.088
Middle old (>74 years old)	3	3.5	82	96.5		
Ethnic						
Malay	39	7.5	480	92.5	1.974	0.160
Non Malay	15	11.3	118	88.7		
Marital Status						
Ever married	53	8.8	546	91.2	2.257	0.133
Never married	1	1.9	52	98.1		
Positive family history						
Yes	8	30.7	18	69.3	18.026	<0.001
No	46	7.4	580	92.6		
Physical activity						
less than 3 times per week	21	8.0	241	92.0	0.041	0.839
equal or more than 3 times per week	33	8.7	357	91.3		
High cholesterol diet						
Yes	50	8.2	563	91.8	0.026	0.872
No	4	10.3	35	89.7		
Fibre diet						
Yes	54	8.4	592	91.6		1.000*
No	0	0	6	100		
Perceived health status						
Good	27	8.8	280	91.2	0.201	0.654
Poor	27	7.8	318	92.2		
Perceived psychological status						
Happy	30	6.6	443	93.4	8.534	0.003
Sometimes happy	24	13.4	155	86.6		

Fisher Exact Test*DISCUSSION**

This study was done to see the prevalence of mammogram screening among elderly women in this population and to investigate the association between mammogram screening with selected socio-demographic characteristics family history of breast cancer, healthy lifestyle behaviour, perceived physical and psychosocial health status.

The prevalence of mammogram screening is very low, only 8.3% and this is comparable with other developing countries such as Laos, Vietnam, Bangladesh (World Health Statistics 2008)¹⁰. This very low prevalence

of mammogram screening can explain the increasing incidence of breast cancer in

Malaysia (Norsaadah et al. 2011)³ and also the high prevalence of breast cancer cases being diagnosed at advanced stage. However this prevalence was slightly higher compared to the finding reported by the National Health and Morbidity Survey 2006⁴ whereby the prevalence of mammogram screening among Malaysia women was 7.6%.

With regards to general socio-demographic characteristics of the study population, a similar pattern was seen whereby the majority fell into the young old group. Malaysia being a comparatively young population would be expected to have more

elderly in the young old group (60 to 74). Similarly, with regards to marital status, majority were every married and this is frequently seen in previous reports. Sherina et al. (2004)¹¹ reported among elderly population in Sepang District showed the mean age (SD) was 69.7 (6.8) and majority were married (60.1%). Similar findings were reported by Seong et al. (2012)¹² and Zainab et al. (2008)¹³.

This study found significant relationship between family history and mammogram screening practice. The direction shows that women with family history of breast cancer are more likely to do mammogram screening. Previous research also showed a similar trend whereby women with family history of breast cancer were more likely to carry out mammogram screening¹⁴⁻¹⁷. Another study also found that women with positive family history thought that they were more exposed to breast cancer compared with others¹⁸. This may also be explained by the protocol practiced by Ministry of Health Malaysia whereby women with positive family history were encouraged more to do mammogram screening, even though in the younger age group. According to the findings obtained from studies conducted using the health belief model framework, a relationship has been reported between women's perceived susceptibility to have breast cancer and screening behaviors^{19, 20}. Women were more persuaded to obtain mammogram when they perceived a higher susceptibility to breast cancer, although some research showed negative finding. For example higher perceptions of susceptibility was observed to be associated with reduced mammogram screening rates²².

Apart from positive family history, a significant association was also found between perceived general psychological status with mammogram screening. It was found that women who reported to be sometimes happy with their life were majority going for mammogram screening compared to those who reported happy life. Even though different from what was hypothesized, there were few studies which showed similar finding. They found that women who experienced fear, anxiety, worry of cancer, felt embarrassed if they have breast cancer and denial were more likely to do breast cancer screening^{23,24,25,26,27,28,29}. However, there were some

research which showed a different result with regards to psychological factor and breast cancer screening practice²⁹⁻³¹

With regards to other important factors such as carrying out exercise physically, dietary intake no significant association were found. However there were studies that found significant association³². They found that healthy behaviour was strongly associated with mammogram screening even after adjustment for income, education and demographic variables. Even though the relationship between healthy lifestyle and mammogram was found to be not significant, those who practiced healthy lifestyle showed a higher frequency of practicing mammogram¹⁷.

In term of age, this study, showed that young old category women were more likely to carry out mammogram screening compared to the middle old category even though the relationship was not significant. This finding is similar with some other studies in which women's mammography screening practices increased as they became older³³⁻³⁷. In contrast, some previous research showed opposite findings^{38,39}. This discrepancy in study findings may be due to our study population being more from young-old category compare with middle-old aged category.

Limitation of our study

The source of data for this study was from a database that was consolidated about ten years ago and this limited the extent of analysis. Furthermore, the database had not focused on mammogram screening practices. The sample population only consisted of Hulu Langat Selangor area and only limited to elderly women which means this study cannot be generalised to other populations.

Conclusion and Recommendation

This study showed that prevalence of mammogram screening among elderly women in Hulu Langat was low. Factors that were significantly associated with uptake of mammogram screening were having positive family history of breast cancer and psychologically perceived as happy most of the time. However further research exploring on reasons for poor uptake of mammogram among these women need to

be carried out in order for health care providers to understand the real situation before making remedial programmes.

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