

## RESEARCH ARTICLE

# Meta-synthesis Exploring Barriers to Health Seeking Behaviour among Malaysian Breast Cancer Patients

Foo Qing Yu<sup>1</sup>, Muthu Kumar Murugiah<sup>2</sup>, Amer Hayat Khan<sup>3</sup>, Tahir Mehmood

### Abstract

Barriers to health seeking constitute a challenging issue in the treatment of breast cancer. The current meta-synthesis aimed to explore common barriers to health seeking among Malaysian breast cancer patients. From the systematic search, nine studies were found meeting the inclusion criteria. Data extraction revealed that health behavior towards breast cancer among Malaysia women was influenced by knowledge, psychological, sociocultural and medical system factors. In terms of knowledge, most of the Malaysian patients were observed to have cursory information and the reliance on the information provided by media was limiting. Among psychological factors, stress and sense of denial were some of the common factors leading to delay in treatment seeking. Family member's advice, cultural beliefs towards traditional care were some of the common sociocultural factors hindering immediate access to advanced medical diagnosis and care. Lastly, the delay in referral was one of the most common health system-related problems highlighted in most of the studies. In conclusion, there is an immediate need to improve the knowledge and understanding of Malaysian women towards breast cancer. Mass media should liaise with the cancer specialists to disseminate accurate and up-to-date information for the readers and audience, helping in modification of cultural beliefs that hinder timing health seeking. However, such intervention will not improve or rectify the health system related barriers to treatment seeking. Therefore, there is an immediate need for resource adjustment and training programs among health professional to improve their competency and professionalism required to develop an efficient health system.

**Keywords:** Breast cancer - barriers - knowledge - culture - health system - competency - Malaysia

*Asian Pac J Cancer Prev*, 16 (1), 145-152

### Introduction

Breast cancer is the leading cause of death among women. In year 2012 more than 1.5 million new cases of breast cancer were reported globally and the incidence has increased by 20.0% (Cancer, 2014). Overall, women from UK and US were observed to be at a higher risk, with age standardize rate of more than 120 in 100,000 populations (Cancer Research UK, 2002; Siegel et al., 2014). In contrast, India, China and South Africa have considerably lower incidence rate of about 30 in 100,000 population (Dhillon). Overall, a five year survival rate is observed among the 80-90% of the UK and US patients (Cancer Research UK, 2002), which is up to 50-60% among the patients from India, Thailand and Malaysia (Abdullah et al., 2013).

Till to date, it is seen that stage at diagnosis affect survival of breast cancer (Sant et al., 2003). A regional comparison revealed that 90.0% of breast cancer cases in Sub-Sahara (Fregene and Newman, 2005), 40.0% of cases in Malaysia (Yip et al., 2006) and 60.0% of cases in India (Agarwal et al., 2007) are presented in stage III and IV. Compare to East England, 41.0% and 45.0% of breast

cancer is diagnosed in stage I and II (Cancer Research UK, 2002). Breast cancer screening practices are significantly lower among women in China; 20.0% and Malaysia; 4.0% compare to UK; 70.0% (Lawrence et al., 2007)

Assessing the health seeking behavior among women around the world, In Asia, Pakistani women found to have limited knowledge about risk factors of breast cancer, they are only familiar with breast lump, and majority have poor recognition about the breast cancer symptoms (Gilani et al., 2010). Similarly, in India less than 50.0% of participants were aware that breast cancer can be detected early and only 11.0% were aware of breast self-examination (Somdatta and Baridalyne, 2008). Besides, Korean women found to have misconception about preventive behaviors and assume if they once had done screening once, a recheck is not necessary (Im et al., 2004). In western countries, i.e. UK, elderly women had poor awareness about lifetime risk and knowledge about breast cancer symptoms (Grunfeld et al., 2002; 2003). Beside, nearly 50.0% of the German patients delayed in presentation because they believe that symptoms of breast cancer as harmless (Arndt et al., 2002). It is found that British women who delayed presentation made no attribution

<sup>1</sup>School of Pharmacy, Monash University, Bandar Sunway, Selangor, <sup>2</sup>Pharmacy Enforcement Branch, Penang State Health Department, <sup>3</sup>School of Pharmaceutical Science, University Sains Malaysia, Penang, Malaysia \*For correspondence: Tahir.mehmood@monash.edu

to breast cancer and express less fear on discovery of symptoms (Burgess et al., 1998). Surprisingly, Iranian women delayed in presentation because they did not perceive benefit of breast screening (Jarvandi et al., 2002). Similarly, in Hong Kong 42.0% of women believe in limited benefit of mammography, and due to lack of time and cost most they are unable to go for a mammography session (Chua et al., 2005). For Chinese American who delayed presentation often perceived screening as inviting illness and language as barrier to communicate (Facione et al., 2000). Besides, studies among Arab women revealed feeling of discomfort and embarrassment during diagnosis and the inability to fulfill female roles in society following the diagnosis of cancer (Baron-Epel et al., 2004; Azaiza and Cohen, 2006). Health Behavior Model described health perception of benefits, barriers and seriousness as psychological factors in increased risk of delay presentation (Champion and Skinner, 2008).

Addressing the situation in a multicultural society like Malaysia, Chinese women has the highest incidence rate of breast cancer (Zainal Ariffin and Nor Saleha, 2011), it is found that more Malay are presented in advanced stages and generally accounted for higher mortality rate (Hisham and Yip, 2003; Yip et al., 2006). Efforts had been done to promote awareness of breast cancer with health campaign and preventive programs including RM50 subsidization for mammography by the Ministry of Health (Dahlui et al., 2011). However, in spite of the advance medical care in Malaysia, the incidence of breast cancer is still inclining at rate of 40 in 100,000 population (Zainal Ariffin and Nor Saleha, 2011). Therefore, challenge faced by Malaysia may include a wide prospective aspect from public health education to culturally sensitive clinical care. In addition, in spite of qualitative and quantitative research, it is not clear that what are the barriers that may hinder the health seeking process among Malaysian women. The current meta-synthesis aim to explore the data from the Malaysian qualitative studies to identify the barriers to health seeking for breast cancer among Malaysian women.

## Materials and Methods

Meta-synthesis is a technique used to facilitate knowledge development by bringing together qualitative findings on phenomena of interest to the discipline (Jensen and Allen, 1996). Sandelowski also stated that the task for scholars is to find ways to apprehend and re-present different representations to achieve fuller knowing (Sandelowski, 1993). In order to ensure a systematic search, search strings were defined and search was done with the relevant databases (Table 1). Upon the identification of article data was extracted and relevant article were further screened for inclusion or exclusion in the study. Details about the inclusion and exclusion criteria are shown in Figure 1.

### *Data extraction and synthesis of themes*

Our study data was analyzed through synthesizing and transforming the description that best inform the phenomenon of interest in reality that assist to attain the

objectives that are outlines for this study. The findings from the selected qualitative studies were first interpreted based on the themes synthesized by the studies' author as the basic explanatory of the phenomenon. Then, the primary findings are summarized and categorized into a table according to similar themes to apprehend the shared findings among the studies. Aiming at the development of advance knowledge in the field of interest to influence current practice, the primary findings across studies were reinterpreted by translating and comparing the subjects' description line by line, noting keywords which would indicate similarities and differences. This process was carried out to synthesize secondary findings and to determine how these eight themes retrieved from each study would relate with one another. Then the secondary findings were refined to generate new themes in order to inform new knowledge found in this research.

## Results

The background characteristics of the studies population are shown in figure 2 to 5. Women included in the identified studies represented three major ethnic groups in Malaysia; however, it is shown that 72% of study population was Malay and only 8% from Indian representative. 50% of study population fall under middle age group of 40 to 50 year old and 87% of the studies women are married. Half of the studies women are employed and of all 9 studies, 2 studies were conducted in both rural and urban area, 3 studies were in East Coast of Peninsular Malaysia, and the other 3 were conducted in urban area of Kuala Lumpur and Penang.

Barriers to health seeking among breast cancer women in Malaysia summarized from the nine studies included: *i*) Lack of knowledge about breast cancer and breast cancer symptoms, *ii*) Denial and Psychological defense *iii*) Fear of cancer consequences, *iv*) Fear of surgery and treatment side effects, *v*) Believe in alternative treatment, *vi*) Influences of other in symptoms appraisal and decision making, *vii*) Health system weakness and *viii*) Other priorities taking precedence over personal health. Four new themes were synthesized from the literature are presented as follow;

### *Lack of knowledge in symptoms appraisal as factor to delay presentation*

Non recognition of breast cancer symptoms: Young Chinese working women who delayed presentation of breast cancer admitted that they had no knowledge and understanding about breast cancer and its symptoms; (Taib et al., 2011; Yusoff et al., 2011; Norsa'adah et al., 2012). Of whom, most have access to breast cancer information in the newspaper but there were concerns about the reliability of information, as some respondents believe that the information is vague or misleading. (Taib et al., 2011). In contrast, Malay working women disclosed limited access to breast cancer information; stated, "I never received any printed materials about it... I did not have time to go into electronic media. If given, surely I would read them" (Norsa'adah et al., 2012). Overall, time and access to information are the two main barrier to non-recognition

or poor knowledge about breast cancer (Taib et al., 2011; Norsa'adah et al., 2012).

**Non-recognition of the seriousness of symptoms:** Delayed presentation of breast cancer was identified to be associated with patient perception about the seriousness of the symptoms. overall, it is seen that most of the women do not infer breast changes as serious illness that requires any action (Taib et al., 2011; Norsa'adah et al., 2012). Such perception was associated with absence of breast pain and "small" lump. For example, if the symptoms are painless and do not affect their daily activities, Malay women did not attribute breast changes as cancer or serious illness (Taib et al., 2011; Norsa'adah et al., 2012). almost same behavior was notice among the Chinese patients, who took notice when the lump had grown bigger (Taib et al., 2011; Yusoff et al., 2011). It is evident that some women monitor their symptoms changes in order to recognize the potential seriousness of the symptoms (Taib et al., 2011; Yusoff et al., 2011).

However, some patient have association the Non-recognition of seriousness of symptoms was also associated with situational factors such as pregnancy and lactation cancer (Taib et al., 2011; Yusoff et al., 2011; Norsa'adah et al., 2012). Women perceived breast changes as very common during pregnancy or breastfeeding; they assumed the swollen breast as milk collection cancer (Taib et al., 2011; Yusoff et al., 2011; Norsa'adah et al., 2012). It is also found that lack of knowledge about breast cancer among these pregnant and lactating mother would reinforced the bias towards a less serious condition, for example a breastfeeding mother described "*I did not suspect anything...because I thought it (the symptom) was related to breastfeeding. I thought it was milk collection. I did not think of cancer at all. I didn't know anything about cancer...*" (Norsa'adah et al., 2012).

**Unawareness of being at risk:** Unawareness of being at risk is another barrier found effecting immediate treatment. Some patients never thought that they will be diagnosed with breast cancer (Taib et al., 2011). Besides, breast lump are detected accidentally or when it had grown big described "*I don't really do breast self-examination, when I was washing clothes I felt it...*" (Taib et al., 2011); this attitude was noticed to be more reflected among Malay women than Chinese. This indicates Malay women

don't do regular breast self-assessment because they do not perceive the risk of getting breast cancer and the importance of early detection. The risk factor identified by the older aged women in the studies was family history (Taib et al., 2011). There was an Indian woman who reported breast pain for two years but insisted family history must be presented in the risk of breast cancer (Taib et al., 2011).

#### Psychological burden as the factor of delay treatment

**Negative beliefs of cancer as barrier to perceived treatment benefits:** It is found that as compare to women with earlier stage of cancer, women diagnosed with advanced breast cancer were more likely to associate with psychological emotion such as avoidance, denial and fatalism (Taib et al., 2011; Yusoff et al., 2011; Norsa'adah et al., 2012); a patient stated "*If they came in earlier stage maybe it would have been different*" (Taib et al., 2011). Most women in Malaysia diagnosed with advanced cancer perceived cancer as recurrence disease, incurable and immediate death (Taib et al., 2011; Norsa'adah et al., 2012). Due to fatalism beliefs, it is found that these women would more likely to reject treatment as they do not perceived its benefit, for example, a women described

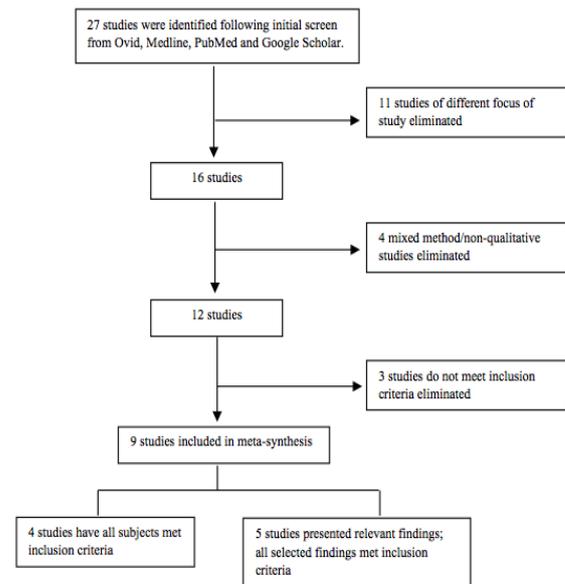


Figure 1. Screening Process of All Retrieved Articles

Table 1. Search Terms and Search Engine Used to Retrieve Studies

Search terms and results	Search Engine	Result
Breast Cancer, Malaysia (200)	Ovid Medline	11 articles out of 200 were found relevant from Ovid
Breast Cancer, Malaysia, Knowledge (58)	Pubmed	Overlapped articles are excluded, total
Breast Cancer, Malaysia, health Seeking (7)	Google Scholar	of 27 articles are selected for further studies
Breast cancer, Malaysia, perception (14)		
Breast cancer, Malaysia, understanding (16)		
Breast cancer, Malaysia, attitude (44)	Pubmed	
Breast cancer, Malaysia, behaviour (70)		
Breast Cancer, Malaysia, attitude, behaviour,- screening, delay treatment, barriers, factors	Google Scholar	
Breast cancer, Malaysia, alternative (17)	Pubmed	
Breast Cancer, Malaysia, traditional (15)		
Breast cancer, Malaysia, treatment option, alternative, traditional	Google Scholar	

"I would have just left it like that, because you know when you hear you have cancer, you just feel unwell, that's it. You just wait for time to come" (Taib et al., 2011). Besides, it is also found that some women refer and apply experiences of close relatives and friends having the same disease to their own situation (Taib et al., 2011; Norsa'adah et al., 2012). Therefore, it indicates that treatment outcome experienced by others also significantly affect women perceived curability of cancer and benefits of treatment.

In addition, studies found another factor of treatment decision was the progression of disease. For example, some women stated that they would consider treatment only when the tumor had enlarged or resulted in pain (Taib et al., 2011; Norsa'adah et al., 2012). However, it is also found that some women had neglected the impact of quality of life following the progression of cancer where they described letting the disease "progress naturally" (Taib et al., 2011).

**Family burden:** It is found that women often did not disclose their problem to the family because of the perceived impact of the disease that will bring to her family members (Taib et al., 2011; 2013). Besides, studies on women with advanced breast cancer also found that some of them felt despair to their family members and this could amplify their fear and negative beliefs of cancer (Taib et al., 2011; Norsa'adah et al., 2012). A widow from the study described "*I was scare to face the reality. At the same time I was thinking of the family and thinking what it would mean that I may go off suddenly*" (Taib et al., 2011). In contrast to patient at earlier stage of cancer, positivism was observed in some of them as the coping mechanism (Yusoff et al., 2011).

**Side effects of cancer treatment:** Almost every patient interviewed was observed to express fear towards the procedure of surgery and side effects of chemotherapy (Yusoff et al., 2011; Norsa'adah et al., 2012). Some of the women were afraid of being unconscious during the surgery and the perceived painful experience after surgery (Norsa'adah et al., 2012). It is also found that breast operation was not acceptable to most Malay women if the lump is small because they perceived breast as an essential body part to be preserved; for example, a woman described "*Doctor wanted to remove my breast. At first, I did not want because the lump was still small. I asked the doctor whether he could do a small operation only...*" (Yusoff et al., 2011).

Few women also expressed that side effects of chemotherapy were among the reasons they reject treatment. For example, a women described side effects of chemotherapy as "*extreme suffering*" (Norsa'adah et al., 2012) and the other woman thinks that her body was weak to compromise chemotherapy. Besides, due to the uncertainty of treatment outcome, some women perceived no worth to suffer chemotherapy as it is physiologically and psychologically burdensome and affect their functioning of life (Norsa'adah et al., 2012).

Besides, it is found that Malay women have misconception and low confident about the treatment procedure, which could be overcome by health education

and effective communication between physician and patient, for example, "*I felt not confident (of treatment)... scared...people said it was like fire...like oven*" (Norsa'adah et al., 2012).

#### *Socio-cultural effects on health decision*

**Importance of family support:** Throughout the studies, it is found that middle aged women in Malaysia regardless of any ethnic, educational and social background were found lack of self-management and often require family member or friend for practical and emotional support such as advices and encouragement regarding their treatment choice (Taib et al., 2011; Norsa'adah et al., 2012; Taib et al., 2013). It is also found that some women of middle age and above presented for diagnosis were urged by their children and grandchildren; hence, besides the importance of family support, disclosure of problems to family member is shown to be important for early diagnosis as well (Taib et al., 2011; Taib et al., 2013). However, in other cases, it is found that close relatives especially husband went through denial phases as well and they were not able to offer support for the women (Taib et al., 2011; Norsa'adah et al., 2012). In this case, reliance on family decision will prolong the time to receive treatment.

**Cultural values in family:** Across the studies, there are three aspects found in the family culture of Malaysians. Firstly, it is found that across all ethnics, traditional treatment was often their prior preference and the decision could be made by the elderly of the family or by patient her own (Norsa'adah et al., 2012; Taib et al., 2013); as described by a woman who believed that traditional treatment "could shrink the lump" (Norsa'adah et al., 2012). Secondly, although different ethnics have their own cultural beliefs, it is found that all studied races Malay, Chinese and India respect their husband and elderly decision on treatment (Taib et al., 2011; Norsa'adah et al., 2012; Taib et al., 2013). For example, there was a young Chinese woman who reported no courage to against her parents directives on the use of traditional treatment (Taib et al., 2013) and another Malay woman who went to homeopathy just to satisfy their husband (Norsa'adah et al., 2012). It is therefore suggested that adhering the family's decision was part of the women's role in Malaysian culture. Thirdly, the importance of body image and female's marital role in the family is also highly observed in Malay culture (Yusoff et al., 2011). Besides being reluctance to mastectomy (Yusoff et al., 2011), some women found themselves guilty to have embarrassed their husband, as described "What a shame (to have mastectomy) because we are women... my confidence level was really low. I felt a pity to my husband" (Norsa'adah et al., 2012).

**Recommendation from friends:** It is found that women in Malaysia often obtained recommendation from friends especially when they do not have family support. Friends in most of the time would provide motivation and encouragement however, by recommending alternative treatment. It is found that women were strongly influenced by the positive feedback such as "the thing has gone",

“many got cured” and “he could heal” described by their friends and adhered to alternative treatment even though they might have not understand the principal of traditional medicines. (Yusoff et al., 2011; Norsa’adah et al., 2012; Taib et al., 2013).

#### *Health system issues*

**Incompetence of general practitioner in primary health settings:** Studies have reported numerous cases of delayed referral to diagnostic facilities (mammography) especially from those women who had visited private clinic (Taib et al., 2011; 2013; Yusoff et al., 2011; Norsa’adah et al., 2012). It is found that general practitioners made false assumption of breast lump as benign or as due to stress, knot and milk clot; hence they did not refer the women further to diagnostic clinic (Yusoff et al., 2011; Norsa’adah et al., 2012; Taib et al., 2011; 2013). It suggest that they have lack of competency and awareness in detecting possible symptoms of breast cancer, and the lack of clinical breast examination efficiency in early detection. In addition, it is found that younger aged women and pregnant mother were the two most common subjects of misdiagnosis as the physician would easily misunderstood it as milk abscess (Taib et al., 2011; 2013; Norsa’adah et al., 2012; Yusoff et al., 2011).

Besides it is found that some clinics have their nurses and medical attendance to perform the examination or translating the diagnostic results which often lead to miscommunication and perfunctoriness. For example, there are women who described “Medical assistance looked at my breast just like that...” (Yusoff et al., 2011) and “The nurse examined... but did not tell anything...” (Norsa’adah et al., 2012).

**Poor communication between medical provider and patients:** It is found that lack of communication about diagnosis and treatment procedure between medical provider and patients may result in misunderstanding that reduces patient’s trust and confidence in health care system (Taib et al., 2013). For example, studies showed that women had significant misconception about spreading of cancer due to contact of sharp objects used in biopsy and surgery (Farooqui et al., 2011; Norsa’adah et al., 2012). Besides, there was also lack of clarity in the medical terms such as “atypical cell” and “ductal carcinoma in situ” which often leads to patient’s confusion and delayed treatment (Norsa’adah et al., 2012; Taib et al., 2013).

**Appointment delays:** Many studies reported that patients were given consultation or diagnostic appointment at least a month away (Norsa’adah et al., 2012; Taib et al., 2013). Appointment delayed may indirectly affect treatment outcome when patient decided to ignored the symptoms during that period of waiting. For example, a patient described that “she was told to come back in 3 months but no appointment was given. After 3 months, she felt no changes and did not bother to return” (Norsa’adah et al., 2012). It is likely that woman who perceived treatment in private facility as unaffordable burden would encounter delay appointments in government hospital (Taib et al., 2013).

## Discussion

This study highlights that delay in health seeking was due to poor symptoms interpretation. This supports the theory of self-regulation model where symptoms are key factors in cognitive representations of health threats and initiation of health seeking (Cameron et al., 1993). Like other developing nations, Malaysian women did not take action to breast changes that are painless or believe that problem might go away itself (Okobia et al., 2006; Ozmen, 2008; Bhatt et al., 2011); however, in contrast women from developed nations were able to identified painless lump as breast cancer symptoms. This delay in recognition further increasing the disease burden in developing nations, therefore it is necessary to correct public and patients perception of symptoms and risk factor to improve symptoms appraisal and to prevent underestimation of symptoms severity (Grunfeld et al., 2002; McMenamin et al., 2005; Odusanya et al., 2011; Brzozowska et al., 2014). However, it was surprising to see that young women in Malaysia who had accessed health information from media found it least useful and were confused when they compares symptoms described in media with their personal experience. The Malaysian women concern about the media information are in line with the study done in turkey that concluded same concerns about the information disseminated by media (Dündar et al., 2006). Most of the women especially housewife are likely to obtain knowledge from women’s lifestyle television programs or radio (Chua et al., 2005; McMenamin et al., 2005; Khan et al., 2010; Baig et al., 2011; Khan et al., 2011). It will be more ideal if the health department lead these campaigns, so that evidence base information can be brought to the patient and public knowledge.

Patient’s negative perceptions about treatment of breast cancer act as a major barrier to health seeking. It is seen that patients with advance stages of cancer felt afraid and hopeless. They cope with their fears by denial, non-disclosure and seeking of alternative treatment (Mohamed et al., 2005). This sense of denial may promote negative beliefs toward the benefit of medical treatment and led to non-adherence of cancer treatment (Bottorff et al., 1998; Iskandarsyah et al., 2014).

In addition, in women with advanced breast cancer, death is not the only issue they concern but the impact of the cancer on their family, inability to commit maternal responsibility and family engagement were the reported factor of delayed treatment (Turner et al., 2005; Banning et al., 2009; Rastad et al., 2012). Along with this, cosmetic reason like afraid of surgery and losing breast are some other factors leading delay in health seeking (Ajekigbe, 1991; Bottorff et al., 1998; Bourdeanu et al., 2013). Women delayed in treatment were also found to have concern on body image and sexual health after breast cancer treatment (Weinmann et al., 2005; Ashing-Giwa et al., 2006). A study found there was woman expressed loss of breast as a loss of femininity, but there were also other women who were able to accept changes to their physical appearance induced by cancer itself or by the specific treatments (Khoo, 2009). It is found that most health professionals fail to address sexuality in the clinical setting

due to cultural sensitivity, treatment outcomes oriented and presumption that issues of survival overshadow sexuality (Hordern, 2000). Therefore, it is suggested that nurses could provide counseling on sexuality concerns and this could alter patients' sociopsychological perception of body image and sexual health to re-consider treatment option of breast surgery.

Furthermore, those women diagnosed with breast cancer often face physical discomfort and psychological stress, and they lack the ability to manage their illness through readjusting the attitude towards illness, caring and support of family and practicing religion (Lu et al., 2010). Thus variety of social and psychological reason is there they may hinder immediate treatment access or consultation for the advance care and surgery. It is proven that improvement in social support by the family member or care providers have significant influence on cancer care (Banning and Tanzeen, 2014). Besides, patient often assessed their risk by comparing themselves with people suffering from cancer, and apply the experiences of others to their own situation (Charles et al., 1998). In Malaysian context it will be ideal to establish cancer survivors committee for encouragement to coping with side effects of treatment. Hearing the experience of others who had successful cancer treatments helped balance the experience in terms of information and understanding the process as well as emotional support and reducing anxiety (Simpson, 2005).

Another big challenge in most of Asian countries is the family-centered model of decision making (Huang et al., 1999; Ong et al., 2002; Gilbar R and Gilbar O, 2009), women prefer to be accompanied by a family member for health related appointments (Bottorff et al., 1998). It is found that family members and especially husband assist the patient in decision making, inability to communicate with physician, sense of vulnerability to make important decisions and private nature of some women that they should not be left alone with a doctor (Bottorff et al., 1998; Ong et al., 2002). In Chinese society, family is seen as the basic structural and functional unit, therefore family beliefs significantly determine the strategies of coping patterns in cancer (Simpson, 2005). Though, family involvement in treatment decision could provide support to patients, however, it is found that sometimes husbands may react to cancer with disbelief, fear, depression and feeling overwhelmed by the situation (Hilton et al., 2000; Simpson, 2005). This fear might have overwhelming consequences in some societies/ traditions i.e. In Indian tradition, women duties are to keep family honor, to nurture children and to look after husband. This cultural perceived women role could cause denial and avoidance of cancer diagnosis (Bottorff et al., 1998). These issues are perhaps not yet addressed in Malaysian setting; reliance on family for emotional support is essential but how the women from different cultures and ethnicities residing in Malaysia priorities the self-management of health issues should be the prime focus of the future research.

In a multicultural society like Malaysia, there is a diversity of traditional and holistic care. Often breast cancer patients they choose traditional care to manage the cancer symptoms and complications. It is noticed

that the beliefs toward traditional care are more common in multiethnic countries, which result significant delay in medical care, (Facione et al., 2000; Struthers and Anne, 2004; Ukwenya et al., 2008; Iskandarsyah et al., 2014). In Chinese society, it is also very common for a family to seek assistance from family and friends about diet and Chinese medicine (Simpson, 2005). Studies also found relationship between the use of traditional treatment and the belief of cause of cancer; for example: Chinese belief of inappropriate or unhealthy diet causing cancer is in consistent with their integration of diet in traditional Chinese medicine to manage illness symptoms and prevent recurrence (Simpson, 2005). Besides, the practice of Qi Gong among cancer patients is to achieve living in harmonious balance with the seasons because they believe disharmony can cause illness (Simpson P, 2005). Therefore, it is suggested that understanding the cultural aspect of a certain community would improve patient-provider interaction, thus helping medical provider to rectify negative influence of cultural factors in health seeking behavior.

Referral delay after initial visit to primary health care settings was observed in many studies. Malaysian patients whose initial contact was with a general surgeon, primary care provider, or gynecologist were significantly more likely to experience referral delay to diagnostic facility (Mousa et al., 2011). The factors of delay referral include absence of palpable lump, presentation of small tumors, working women with stress (Burgess et al., 1998; Abdel-Fattah et al., 1999; Arndt et al., 2003; Barber et al., 2004), false attitude of primary care provider, inappropriateness to reassure lump can be benign without biopsy (Goodson and Moore, 2002; Ermiah et al., 2012), misread and overreliance of mammogram and pathologic finding (Goodson and Moore, 2002). Similar finding were observed for the referral of pregnant women and young patients presented with breast lump (Montella et al., 2001; Buré et al., 2011). It indicate that general practitioner and primary care nurses may not have complete up-to-date knowledge on appropriate breast cancer diagnostic methods and treatments (Mousa et al., 2011). However, due to better accessibility of primary care facilities, it is suggest that doctors and patients need to be educated about the different types of breast cancer symptoms. (Burgess et al., 1998; Ermiah et al., 2012). In addition, factors associated with in-hospital delay and loss of follow up were found similar to the findings in studies among developing countries and minorities in the developed countries. They include negative health care experiences due to poor communication between patients and provider, dis-sanctification with info provided due to incomplete or misinformation, used of medical terminology, fear of health care system, clinicians mistrust, difficulties in obtaining medical appointment, difficulties in scheduling, perceived disrespect and mistreatment from provider and logistic barriers (McCarthy et al., 1996; Thongsuksai et al., 2000; Allen et al., 2008; Peek et al., 2008). Therefore, to reduce system delay in addressing these factors, interventions such as providing information to patients' understandable format,, arranging transportation services in rural area, connecting patients with community resources to address

specific needs and providing translation services to avoid communication barriers are suggested (Battaglia et al., 2007). However, these interventions would be difficult to carry out in limited financial and workforce resources setting such as Malaysia, reallocation of resources and increase training for health professionals would be the aspects to be looked into now.

In conclusion, health behavior towards breast cancer among Malaysia women was influenced by knowledge, psychological, sociocultural and medical system factors. It is recommended that patient-center interventions are more likely to develop better outcome of health behavior. Educational message published through mass media requires improvisation towards more practical and non-confusing info to correctly enhance public knowledge about breast cancer. Besides, stress management program and support group of survivors committee is recommended to improve patients' ability to cope with cancer positively. Lastly, resources adjustment and training program among health professional to improve their competency and professionalism in line with cultural beliefs is required to develop an efficient health system.

## References

- Abdel-Fattah, Moataz M, Anwar A, et al (1999). Patient-and system-related diagnostic delay in breast cancer. *Eur J Public Hlth*, **9**, 15-19.
- Abdullah, Aini N, Mahiyuddin, et al (2013). Survival rate of breast cancer patients in malaysia: a population-based study. *Asian Pac J Cancer Prev*, **14**, 4591-4.
- Agarwal G, Pradeep P, Aggarwal V, et al (2007). Spectrum of breast cancer in Asian women. *World J Surg*, **31**, 1031-1040.
- Ajekigbe AT (1991). Fear of mastectomy: the most common factor responsible for late presentation of carcinoma of the breast in Nigeria. *Clin Oncol*, **3**, 78-80.
- Allen J, Shelton R, Harden E, et al (2008). Follow-up of abnormal screening mammograms among low-income ethnically diverse women: Findings from a qualitative study. *Patient Educ Counsel*, **72**, 283-292.
- Arndt V, Stürmer T, Stegmaier C, et al (2002). Patient delay and stage of diagnosis among breast cancer patients in Germany a population based study. *Br J Cancer*, **86**, 1034-40.
- Arndt V, Stürmer T, Stegmaier C, et al (2003). Provider delay among patients with breast cancer in Germany: a population-based study. *J Clin Oncol*, **21**, 1440-6.
- Ashing-Giwa T, Padilla G, Bohórquez D, et al (2006). Understanding the breast cancer experience of Latina women. *J Psychosocial Oncol*, **24**, 19-52.
- Azaiza F, Cohen M, (2006). Health beliefs and rates of breast cancer screening among Arab women. *J Women's Health*, **15**, 520-30.
- Baig M, Subramaniam V, Annaliza A, et al (2011). A population based survey on knowledge and awareness of breast cancer in the suburban females of Sungai Petani, Kedah, Malaysia. *Int J Collaborative Res Intern Med Public Health*, **3**, 671-9.
- Banning M, Hafeez H, Faisal S, et al (2009). The impact of culture and sociological and psychological issues on Muslim patients with breast cancer in Pakistan. *Cancer Nursing*, **32**, 317-24.
- Banning M, Tanzeen T (2014). Living With advanced breast cancer: perceptions of Pakistani women on life expectations and fears. *Cancer Nurs*, **37**, 12-8.
- Barber M, Jack W, Dixon J. (2004). Diagnostic delay in breast cancer. *Br J Surg*, **91**, 49-53.
- Baron-Epel O, Granot M, Badarna S, et al (2004). Perceptions of breast cancer among Arab Israeli women. *Women Health*, **40**, 101-16.
- Battaglia T, Roloff K, Posner M, et al (2007). Improving follow-up to abnormal breast cancer screening in an urban population. *Cancer*, **109**, 359-67.
- Bhatt V, Wetz R, Shrestha R, et al (2011). Breast cancer knowledge, attitudes and practices among Nepalese women. *Eur J Cancer Care*, **20**, 810-7.
- Bottorff J, Johnson J, Bhagat R, et al (1998). Beliefs related to breast health practices: the perceptions of South Asian women living in Canada. *Social Sci Med*, **47**, 2075-85.
- Bourdeanu L, Luu T, Baker N, et al (2013). Barriers to Treatment in patients with locally advanced breast cancer. *J National Comprehensive Cancer Network*, **11**, 1193-8.
- Brzozowska A, Duma D, Mazurkiewicz T, et al (2014). Reasons for delay in treatment of breast cancer detected due to breast self-examination in women from the Lubelskie region. *Ginekologia polska*, **85**, 14-7.
- Buré L, Azoulay L, Benjamin A, et al (2011). Pregnancy-associated breast cancer: a review for the obstetrical care provider. *J Obstet Gynaecol Can*, **33**, 330-7.
- Burgess C, Ramirez A, Richards M, et al (1998). Who and what influences delayed presentation in breast cancer? *Br J Cancer*, **77**, 1343.
- Burrows P (2003). Family beliefs about diet and traditional Chinese medicine for Hong Kong women with breast cancer. *Oncol Nurs Forum*, **30**, 834-40.
- Cameron L, Leventhal EA and Leventhal H. (1993). Symptom representations and affect as determinants of care seeking in a community-dwelling, adult sample population. *Health Psychology*, **12**, 171.
- Cancer Research UK. (2002, January 2014). Breast Cancer. Retrieved 20 May, 2014, from <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/breast/>
- Champion VL, Skinner CS, (2008). The health belief model. *Health behavior and health education: Theory, research, and practice*, **4**, 45-65.
- Charles C, Whelan T, Gafni A, et al (1998). Doing nothing is no choice: lay constructions of treatment decision-making among women with early-stage breast cancer. *Soc Health Illness*, **20**, 71-95.
- Chua MST, Mok TSK, Kwan WH, et al (2005). Knowledge, perceptions, and attitudes of Hong Kong Chinese women on screening mammography and early breast cancer management. *Breast J*, **11**, 52-56.
- Dahlui M, Ramli S, Bulgiba AM. (2011). Breast cancer prevention and control programs in Malaysia. *Asian Pac J Cancer Prev*, **12**, 1631-4.
- Dundar P, Ozmen D, Ozturk B, et al (2006). The knowledge and attitudes of breast self-examination and mammography in a group of women in a rural area in western Turkey. *BMC Cancer*, **6**, 43.
- Ermiah E, Abdalla F, Buhmeida A, et al (2012). Diagnosis delay in Libyan female breast cancer. *BMC Research Notes*, **5**, 452.
- Facione NC, Giancarlo C, Chan L (2000). Perceived risk and help-seeking behavior for breast cancer: a Chinese-American perspective. *Cancer Nurs*, **23**, 258-67.
- Farooqui M, Maryam MA, Shatar AK, et al (2011). A qualitative exploration of Malaysian cancer patients' perspectives on cancer and its treatment. *BMC Public Health*, **11**, 525.
- Fregene A, Newman LA, (2005). Breast cancer in sub Saharan Africa: How does it relate to breast cancer in African American women? *Cancer*, **103**, 1540-50.
- Gilani SI, Khurram M, Mazhar T, et al (2010). Knowledge, attitude and practice of a Pakistani female cohort towards breast cancer. *JPMA. J Pakistan Med Assoc*, **60**, 205.

- Gilbar R, Gilbar O (2009). The medical decision making process and the family: the case of breast cancer patients and their husbands. *Bioethics*, **23**, 183-192.
- Goodson WH, Moore DH (2002). Causes of physician delay in the diagnosis of breast cancer. *Arch Internal Med*, **162**, 1343-8.
- Grunfeld EA, Ramirez AJ, Hunter MS, et al (2002). Women's knowledge and beliefs regarding breast cancer. *Br J Cancer*, **86**, 1373-8.
- Grunfeld EA, Hunter MS, Ramirez AJ, et al (2003). Perceptions of breast cancer across the lifespan. *J Psychosomatic Res*, **54**, 141-6.
- Hilton BA, Crawford JA, Tarko MA (2000). Men's perspectives on individual and family coping with their wives' breast cancer and chemotherapy. *Western J Nurs Res*, **22**, 438-59.
- Hisham AN, Yip CH, (2003). Spectrum of breast cancer in Malaysian women: overview. *World J surgery*, **27**, 921-3.
- Hordern A (2000). Intimacy and sexuality for the woman with breast cancer. *Cancer Nursing*, **23**, 230-6.
- Huang X, Butow P, Meiser B, et al (1999). Attitudes and information needs of Chinese migrant cancer patients and their relatives. *Aust NZ J Med*, **29**, 207-13.
- Im EO, Park YS, Lee EO, et al (2004). Korean women's attitudes toward breast cancer screening tests. *Int J Nursing Studies*, **41**, 583-9.
- Iskandarsyah A, Klerk C, Suardi DR, et al (2014). Consulting a traditional healer and negative illness perceptions are associated with non adherence to treatment in Indonesian women with breast cancer. *Psycho Oncol*, **23**, 1118-24
- Jarvandi S, Montazeri A, Harirchi I, et al (2002). Beliefs and behaviours of Iranian teachers toward early detection of breast cancer and breast self-examination. *Public Health*, **116**, 245-9.
- Jensen LA, Allen MN (1996). Meta-synthesis of qualitative findings. *Qualitative Health Research*, **6**, 553-60.
- Khan TM, AFZAL HA, Khan A, et al (2010). A Pilot Study Evaluating Health Literacy towards Breast Cancer among Multiethnic Students. *J Clin Diagnostic Res*, **4**, 2504-11.
- Khoo SB, (2009). Impact of cancer on psychosexuality: Cultural perspectives of Asian women. *Int J Nurs Practice*, **15**, 481-8.
- Lawrence G, Kearins O, Lagord C, et al (2007). The second all breast cancer report.
- Lu MH, Lin HR and Lee MD. (2010). The experiences among older Taiwanese women facing a new diagnosis of breast cancer. *Cancer Nurs*, **33**, 398-405.
- McCarthy BD, Yood MU, Janz NK, et al (1996). Evaluation of factors potentially associated with inadequate follow-up of mammographic abnormalities. *Cancer*, **77**, 2070-6.
- McMenamin M, Barry H, Lennon AM, et al (2005). A survey of breast cancer awareness and knowledge in a Western population: lots of light but little illumination. *Eur J Cancer*, **41**, 393-7.
- Khan TM, Anwar M, Gillani W. (2011). Knowledge towards breast cancer among Malaysian university students. *The Breast J*, **17**, 553-4.
- Mohamed IE, Williams KS, Tamburrino MB, et al (2005). Understanding locally advanced breast cancer: what influences a woman's decision to delay treatment? *Prev Med*, **41**, 399-405.
- Montella M, Crispo A, Botti G, et al (2001). An assessment of delays in obtaining definitive breast cancer treatment in Southern Italy. *Breast Cancer Res Treatment*, **66**, 209-215.
- Mousa SM, Seifeldin IA, Hablas A, et al (2011). Patterns of seeking medical care among Egyptian breast cancer patients: Relationship to late-stage presentation. *The Breast*, **20**, 555-61.
- Norsa'adah B, Rahmah MA, Rampal KG, et al (2012). Understanding barriers to Malaysian women with breast cancer seeking help. *Asian Pac J Cancer Prev*, **13**, 3723-30.
- Odusanya O, Olufemi O, Tayo O. (2001). Breast cancer knowledge, attitudes and practice among nurses in Lagos, Nigeria. *Acta Oncologica*, **40**, 844-8.
- Okobia MN, Bunker CH, Okonofua FE, et al (2006). Knowledge, attitude and practice of Nigerian women towards breast cancer: a cross-sectional study. *World J Surg Oncol*, **4**, 11.
- Ong KJ, Back MF, Lu JJ, et al (2002). Cultural attitudes to cancer management in traditional South-East Asian patients. *Australasian Radiol*, **46**, 370-4.
- Ozmen V. (2008). Breast cancer in the world and Turkey. *J Breast Health*, **4**.
- Peek ME, Sayad JV and Markwardt R. (2008). Fear, fatalism and breast cancer screening in low-income African-American women: the role of clinicians and the health care system. *J General Internal Med*, **23**, 1847-53.
- Rastad H, Khanjani N, Khandani BK. (2012). Causes of delay in seeking treatment in patients with breast cancer in Iran: a qualitative content analysis study. *Asia Pac J Cancer Prev*, **13**, 4511-5.
- Sandelowski M. (1993). Rigor or rigor mortis: The problem of rigor in qualitative research revisited. *Advances Nurs Sci*, **16**, 1-8.
- Sant M, Allemani C, Capocaccia R, et al (2003). Stage at diagnosis is a key explanation of differences in breast cancer survival across Europe. *Int J Cancer*, **106**, 416-22.
- Siegel R, Ma J, Zou Z, et al (2014). Cancer statistics, 2014. *CA: A Cancer J Clin*, **64**, 9-29.
- Simpson P. (2005). Hong Kong families and breast cancer: Beliefs and adaptation strategies. *Psycho-Oncol*, **14**, 671-83.
- Somdatta P and Baridalyne N. (2008). Awareness of breast cancer in women of an urban resettlement colony. *Indian J Cancer*, **45**.
- Struthers R, Anne NL (2004). Utilization of complementary and alternative medicine among racial and ethnic minority populations: implications for reducing health disparities. *Ann Review Nurs Res*, **22**, 285-313.
- Taib NA, Yip CH, Low WY (2011). Recognising symptoms of breast cancer as a reason for delayed presentation in Asian women: the psycho-socio-cultural model for breast symptom appraisal opportunities for intervention. *Asian Pac J Cancer Prev*, **12**, 1601-8.
- Taib NA, Yip CH, Low WY (2014). A grounded explanation of why women present with advanced breast cancer. *World J Surg*, **38**, 1676-84.
- Thongsuksai P, Suvivatwong V, Sriplung H. (2000). Delay in breast cancer care: a study in Thai women. *Medical care*, **38**, 108-14.
- Turner J, Kelly B, Swanson C, et al (2005). Psychosocial impact of newly diagnosed advanced breast cancer. *Psycho Oncol*, **14**, 396-407.
- Ukwenya AY, Yusufu LD, Nmadu PD, et al (2008). Delayed treatment of symptomatic breast cancer: the experience from Kaduna, Nigeria. *South African J Surg*, **46**.
- Weinmann S, Taplin SH, Gilbert J, et al (2005). Characteristics of women refusing follow-up for tests or symptoms suggestive of breast cancer. *JNCI Monographs*, **2005**, 33-38.
- Yip CH, Taib NA, Mohamed I. (2006). Epidemiology of breast cancer in Malaysia. *Asian Pac J Cancer Prev*, **7**, 369.
- Yusoff N, Taib NA, Ahmad A. (2011). The health seeking trajectories of Malaysian women and their husbands in delay cases of breast cancer: a qualitative study. *Asian Pac J Cancer Prev*, **12**, 2563-70.
- Zainal AO, Nor S (2011). National Cancer Registry Report 2007. Malaysia cancer statistics-data and figure. Kuala Lumpur: National cancer registry, Ministry of Health Malaysia.