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Breast Cancer Etiologies Among Young Malay Breast Cancer Patients

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ABSTRACT

There is a widely held view that breast cancer etiologies vary among women of diverse social-cultural backgrounds. As such, this qualitative study aimed at identifying the various factors associated with the onset of breast cancer symptoms among young Malay women. Thirteen young Malay breast cancer patients in Kuala Lumpur and several selected areas of Selangor were selected through purposive snowballing technique. In relation to this, ethnographic fieldwork employing a qualitative approach was conducted for approximately 10 months. A series of in-depth interviews, phone and online interviews guided by a semistructured interview schedule and participant observation were carried out among the informants of this study. From the thematic analysis of the field notes, it is evident from the present study that young Malay informants had attributed their breast cancer illness to supernatural causes and non-supernatural causes. They strongly believed that saka, spirit attacks, lifestyles, unhealthy food consumption, and hazardous working environments could have contributed to the onset of their breast cancer symptoms. The findings of the present study are imperative particularly for health care providers to understand the healthseeking behaviours of breast cancer patients in the provision of cancer control, particularly in diverse populations like Malaysia.

Keywords: Breast cancer, etiologies, Malay, non-supernatural, supernatural

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INTRODUCTION

Breast cancer has become a global health concern as it causes deaths to many women of diverse social-cultural backgrounds in most parts of the world (Coughlin & Ekwueme, 2009). In Malaysia, breast cancer is the third cause of death after heart diseases and the leading cause of death

due to cancer among Malaysian women. It is found to be the highest among Chinese women as compared to Indian and Malay women (Azizah et al., 2015). According to the World Health Organization (WHO), one of the key components of cancer control is cancer prevention (Vanita et al., 2011). However, lack of knowledge and awareness on risk factors and symptoms as well as the strong influence of cultural beliefs could have profoundly affected the provision of cancer control in diverse population like Malaysia (Cheng & Taib, 2014; Hadi et al., 2010; Hisham & Cheng, 2003; Taib et al., 2007).

Understanding breast cancer as a cultural phenomenon could be one of the key strategies to reduce cancer-related deaths. This could be done by understanding how the concepts of health and illness are perceived by members of the community. One of the important dimensions in discussing health and illness as cultural concepts is the notion of illness etiology (Foster, 1976; Laderman, 1983; Noor, 1993; Nurge, 1958; Razali et al., 1996; Yahaya, 2005).

Foster (1976) observed that illness etiology differed greatly across societies. In the non-western medical system, two systems are identified to explain illness etiology, namely personalistic and naturalistic systems. The personalistic system specifies that disease is caused by an active agent who may be human such as a witch or sorcerer; or non-human such as a ghost, an evil spirit or supernatural being such as a deity. It is believed that an agent brings misfortune that is purposely

directed to harm a person's life inclusive of illness. According to the personalistic system, religion and magic are intimately tied to illness and therefore prevention of illness lies in the basic personal health strategy emphasizing the 'dos', particularly maintaining a good social relationship with other human beings, ancestors and deities.

The naturalistic system, on the other hand, specifies that illness is associated with the concept of humoral balance. Culturally, it is believed that the human bodily functions and illness are perceived as a consequence of an imbalance in the body's four humours such as 'cold', 'hot', 'dry' and 'wet'. A person is held responsible over his own health as he willfully or carelessly engages in any activity that might upset the balance of his body humours and consequently lead to disease igniting the situation. According to the naturalistic system, religion and magic are largely unrelated to illness thus explains that illness causality is specific to illness alone and does not reflect any misfortune. For example, in the Malay community, deficiency or an excess of one of the body humours is attributed as one of the illness etiologies. It is believed that an excess of blood i.e. the hot humor will probably cause an individual to suffer from vertigo or hypertension. This is because, the excess of the 'hot' element in the body has gone to the head and overheated it (Laderman, 1983).

Noor (1993) in his study among the Malay community, had classified illness etiology into two factors i.e. personalistic and naturalistic. For the personalistic factor, he observed that the Malays

strongly believed that one's illness could be associated with qada' and qadar Allah, the roles played by spirits like jin, hantu and syaitan, and the use of magic to harm others such as santau beracun, ilmu pengasih (love charm) or ubat guna-guna. Whilst for naturalistic factors, they attribute germs, venomous snake bites from a cobra, wasps stung, mosquito bites, change of climate, and humoral imbalance in the body such as darah (blood), air (water) and angin (wind) as the contributing factors to one's illness. Similarly, Razali et al. (1996) in their study on the etiology of mental illness in Kelantan, Malaysia found that the majority of Malay psychiatric patients attributed their illness to supernatural causes. They found that these patients associated with the role played by supernatural agents like evil spirits and various types of witchcraft such as spells cast on food, drinks or other objects caused illness on the victims. In relation to that, bomohs were consulted by the patients for their various methods of treatment that could expel evil spirits and neutralise the effects of witchcraft.

In another study, Yahaya (2005) observed that there are three stages in the classification of illness etiology among the Malay community in Pahang, Peninsular Malaysia. She asserted that one's interaction with his biotic and non-biotic surroundings in the community's ecological system could contribute to one's illness. In the first stage i.e. physical ecology, illnesses are believed to be caused by germs due to one's interaction with the elements in his biotic surroundings. At this stage, the cause of and treatment

for this illness is determined by the patient himself based on the knowledge he has about the illness. Next, in the second stage i.e. human ecology, illnesses are believed to be the result of one's interaction with his physical environment in the non-biotic surroundings. These include the elements of the ecosystem like climate and the soil structure. During this stage, one's suffering or ill-condition could be associated with the change of climate. However, if the cause of an illness is unknown, it would escalate to the third stage i.e. cultural ecology for the cause of illness by attributing his suffering or ill-condition to the will of Allah. At this stage, one's cultural beliefs could largely influence how the treatment is sought and the kind of support provided for the ill person. Often, traditional healers like a bomoh will be sought after for help and the family will ensure that the ill person will be provided with the appropriate care until he is fully recovered from his illness.

Among the village folks in Guinhangdan, the Philippines for instance, classify the etiology of illness into natural and supernatural causes. They attribute indigestible food, sudden changes in temperature, strong winds and vagrant breezes, and vapour from the ground when the sun shines after prolonged rain as among the natural agents of illness. Illnesses such as natural incapacitations in women such as *guindudugoan* or bleeding during pregnancy; and natural digestive disorders which are common in babies and children such as *nagooro-oro* or frequent bowel and watery feces are believed to be caused by

these natural agents. On the other hand, they believe that spirit-gods such as tunanon, the earth being, tubignon, river and ocean spirits, and cahoynon, tree spirits; witches and sorcerers such as daotan and palakodan are the supernatural agents of several group illnesses among the village folks. These include dahura, an illness that is recognized by itchiness, spots, aches and pains that are believed to be caused by annoyed tunannon and cahovnon which throw sands, bits of dirt, or small stones at their victims, and several mental disturbances, yaws, and leprosy which are believed to be caused by sorcerers. Commonly, daotan uses several media like a strand of hair from the whorl point on the top or the back of the head or some clothing to inflict illness on intended victims while palakodan uses oil and root to inflict sickness and death on his intended victims (Nurge, 1958).

Similarly, in another study by Kamarudin et al. (2006) on breast cancer patients in Kuala Lumpur, Malaysia, they identified lifestyle as the contributing factor for breast cancer risk. In the study, they observed that unhealthy lifestyles such as lack of physical exercise, high consumption of fat in daily meals and short duration of breastfeeding could have contributed to the risk of developing breast cancer among breast cancer patients. This was because women who lack exercise were four times more likely than women who exercise regularly to be at risk of developing breast cancer due to exposure to estrogen hormone secreted in the fat tissues.

Among American Samoans, kanesa or cancer is perceived as a new illness brought by palagis (westerners). They believe departing from fa'aSamoa, i.e. the healthy lifestyle particularly the ones practised by the elderly, as the main cause for *kanesa*. These include eating an unhealthy diet particularly non-traditional food like canned food and refrigerated items, consuming too much alcohol and smoking *palagi* cigarettes. However, drinking kava (a traditional Samoan drink) and smoking traditional Samoan cigarettes are not associated with the causes of kanesa. This is simply because they never heard anyone in their community suffer from kanesa in the past due to drinking kava or smoking Samoan traditional cigarettes (Hubbell et al., 2005).

From the foregoing discussions, it is evidently shown that there is no single cause of breast cancer illness. Thus, this study was designed to identify the various breast cancer etiologies among young Malay women in Malaysia.

METHODS

Study Area and Population

Ethnographic fieldwork was carried out for approximately ten months among young Malay breast cancer patients in Kuala Lumpur and several selected areas of Selangor. Kuala Lumpur and Selangor are two neighbouring states located in the central region of Peninsular Malaysia. The breast cancer cases reported in both states were among the highest in the country.

Sampling

Thirteen (13) young Malay breast cancer patients were selected to participate in this study. The purposive snowballing technique was employed to identify and locate potential informants. For this purpose, the National Cancer Council (MAKNA) as the 'gatekeeper' was approached in getting access to potential informants for this study. Informants were selected based on the selection criteria determined prior to the selection of the sample. The selection criteria of potential informants include 1) must be women of Malay ethnicity as the study itself focuses on Malay women; 2) must be of young age defined in the study which is within the age range of 25 to 49 years old and 3) must be among breast cancer patients or survivors. This is imperative particularly in understanding how the concept of health and illness is perceived by those who suffered from chronic illness like breast cancer.

Data Collection Procedure

The data collection consisted of ethnographic qualitative methods i.e. in-depth interviews and participant observation. Prior to the interview, the potential informants were contacted via phone call to seek their consent for participation in the study.

In-depth Interviews. A series of indepth interviews were conducted with informants in order to identify the various factors associated with the onset of their breast cancer symptoms. Several interview techniques were included such as face-

to-face interviews, phone interviews, and online interviews. The interview sessions were held informally in a semi-structured way, but guided by the interview schedule. Informants' demographic and health profiles and factors associated with the onset of their breast cancer symptoms were covered in the interview schedule. The interview schedule was developed by the researcher guided by the appropriate literature. It was further constructed in consultation with academics familiar within the field of medical anthropology. Most of the interviews were held face-to-face in various settings such as at informants' house, hospital area, oncology ward, cafeteria and hotel lobby. Each interview lasted from around 45 minutes to one and a half hours. In the case where face-to-face interviews with informants were not possible due to several limitations such as time and health factors, the interview sessions would be held either through a phone interview or online interview

Participant Observation. In order to observe several situations described by the informants throughout the interview sessions, participant observation was carried out. On several occasions, the researcher had the opportunity to participate in several events such as accompanying informants for an appointment in the hospital, visiting them when they were admitted to the hospital and attending funerals when informants passed away. All data obtained and events observed and participated were recorded in fieldwork diary

Data Analysis

Thematic content analysis technique was used to analyse the data obtained from the field. The researcher began the analysis by reading and rereading the field notes and online scripts to gain an understanding of the stories conveyed by informants. Codes were then generated in relation to the study's objective. With the subsequent field notes, codes were added or dropped and the coding list was recoded whenever necessary. When the coding was completed, the codes that have common elements were merged and themes or categories that are explanatory to the relevant issues highlighted in the study were formed. All the themes or categories developed from fieldnotes were compared in order to derive the final themes or categories. The final sets of themes or categories later became the findings of the study.

RESULTS

Demographics

Thirteen (13) young Malay breast cancer patients between the ages of 29 to 48 years old were selected for the study. They were of Malay ethnic origin who practised Islam as a way of life and mainly communicated in Bahasa Melayu. Occasionally, some of them communicated in English They were full-time employees of the government and private sectors, ranging from professionals, managers, officers and clerical staff. As for marital status, the majority of informants were married with at least one child. With regard to the level of education, most of the informants were highly educated for the majority of them attained the highest level of tertiary education. The informants' demographic and health profile is presented in Table 1.

Themes generated from the data obtained in this study in relation to breast cancer etiologies among Malay informants

Table 1 *Informants' demographic and health profile*

No	Age	Marital Status	No. of children	Educational level	Sector	BC Staging
1	36	Married	4	Tertiary	Government	II, IV
2	29	Single	0	Tertiary	Private	II
3	36	Married	1	Tertiary	Private	I, II
4	35	Married	1	Tertiary	Private	II
5	35	Married	3	Tertiary	Government	II
6	41	Divorced	5	Secondary	Government	IV
7	41	Married	3	Tertiary	Private	II
8	36	Married	3	Tertiary	Private	II
9	36	Married	3	Tertiary	Private	II, IV
10	45	Married	5	Secondary	Self-employed	II
11	42	Single	0	Secondary	Private	II
12	48	Married	2	Secondary	Government	II
13	33	Married	4	Tertiary	Government	II

are attributed to supernatural causes and non-supernatural causes.

Theme 1: Supernatural Causes

It was observed that the informants in this study attributed their breast cancer illness to the role played by supernatural forces such as *saka* and spirit attacks.

Saka (Guardian Spirit). One of the informants, a 39 years old cancer patient associated her breast cancer illness with the role played by *saka*. In on one of the interviews she said:

She believed that her breast cancer was due to 'saka' that was passed down indirectly from her late aunt to her. According to her mother, in the context of their family, 'saka' would be matrilineally passed down from an elderly female in one generation to a younger female in the other generation in their family tree. She was told by her mother that her late grandmother was a 'bidan' (midwife) and wanted her eldest daughter (her aunt) to take over the role as 'bidan' from her grandmother. However, her aunt refused to accept her grandmother's suggestion. A few years later, her aunt suffered from breast cancer and died not long after that. Many of her family members associated the cause of her aunt's illness was due to her refusal to become a 'bidan'. A night before her aunt's

death, she was told by her mother that she and some other family members saw a 'lembaga hitam' (black ghost) sat near her aunt's body which disappeared when her aunt passed away. No one knows exactly what the lembaga hitam was and where did it go after that, but many believed it was 'saka'. She further explained that when she got her breast cancer, her mother strongly believed that it was 'saka'.

Similarly, another informant, a 29 years old cancer patient mentioned:

Many of her relatives told her that her breast cancer was 'saka'. This was due to several incidences of breast cancer in the family on her father's side. She described her grandmother (her father's mother) died from breast cancer and later two of her father's sisters were also diagnosed with breast cancer. Following the incidence, a few years later she and one of her cousins (her father's niece) were diagnosed with a similar illness. However, she narrated did not know how the 'saka' was passed down from one generation to the other generation in her family. None of her relatives including her late father could explain about it to her.

In relation to *saka*, the Malays strongly believe that *saka* is a causal factor for breast cancer illness.

Spirits' Attacks. As in the case of breast cancer illness, several informants interviewed believed that a malevolent spirit i.e. *Jin* is used as a medium to inflict a person with the illness. Several motives were identified such as jealousy or envy over others' achievements to be the causal factor for breast cancer. Another informant, a 33 years old cancer patient had associated the onset of her breast cancer symptoms with *sihir*. This is elucidated in the text below:

She described she came across to know about the 'sihir' in relation to the development of her breast cancer symptoms upon her visit to one of the Islamic healing centres to accompany her husband to seek treatment from an 'ustaz'. According to Shah, she was told by the 'ustaz' that one of her relatives had used 'sihir' to harm her family. Shah described the intention to harm derived from the feeling of jealousy and envy of her wealthy life. The 'ustaz' narrated Shah's relative had send 'benda' (item) through 'angin' (wind) with the help of 'Jin Sihir' to harm her family. The 'ustaz' further described Shah's body was 'lemah' (vulnerable to the entry of spirit) causing her to become the target of the 'sihir'. Indeed, her vulnerability had invited more 'Jin' to collectively stay in her body and developed a 'ketulan' in her breast. She was advised by the 'ustaz' to remove the 'ketulan for her to be cured from the 'sihir'. In addition, Shah was asked

to practise 'ayat pendinding diri' (recitation of several Al-Qur'an verses) in order to protect herself from the malevolent spirits.

It was observed that *sihir* is still evident and practised in the Malay community in this study. The role played by religious people like an *ustaz* is still significant in dealing with an illness caused by *sihir*.

Theme 2: Non-Supernatural Causes

Several informants believed that the onset of their breast cancer symptoms could be discussed in relation to their lifestyles, food consumption, and working environment.

Lifestyles. Several informants believed that the onset of breast cancer symptoms could be discussed in relation to one's lifestyle. One of the informants aged 35 associated her breast cancer illness with her habit of eating outside food. She said:

She was always busy and tight with her working schedule. As a result, she preferred eating outside food for she did not have time, particularly on working days to prepare her daily meals at home. The doctor had informed her that the habit of eating outside foods was unhealthy for the food commonly contained artificial flavours, oily, high in cholesterol, calories, sugar, salt and 'berlemak' (coconut milk gravy).

Similarly, lifestyle as university students in the past could have also contributed to the

onset of breast cancer symptoms. They were busy then, with classes and assignments causing them to pay less attention to their diet. Often, they enjoyed eating highly processed food like instant noodles and fast food. According to one of the informants aged 36, the food is easily prepared, tastes good and is inexpensive even though they knew the choice of their food was unhealthy. She narrated:

She believed her habit of eating instant noodles when she was studying at the university could have contributed to the onset of her breast cancer symptoms. She enjoyed eating instant noodles because of the easy preparation, good taste and most importantly inexpensive. Often when she was busy with her assignments, she would eat instant noodles. This habit was described by the doctors as unhealthy for it contained unhealthy ingredients like artificial flavours in which if consumed frequently could trigger the growth of cancer cells.

In another instance, one informant aged 36 attributed her habit of frequently eating fast food when she was a student in the university as one of the contributing factors to her breast cancer illness. She narrated:

She enjoyed eating fast food like burgers and pizzas when she was studying at university. Almost every week when she went outing with

her friends, they would go to any of the fast-food outlets for their meals. The habit continued until she was diagnosed with Stage 1 breast cancer a few years ago. She strongly believed her unhealthy choice of food when she was a student could be one of the contributing factors to the onset of her breast cancer symptoms. She was informed by the doctors that the habit of eating highly processed foods like fast food is unhealthy for the food is lack of nutrition and contain a high amount of calories, refined sugars, and salt. She believed that these ingredients could have caused the onset of breast cancer symptoms.

It is evident that lifestyles and choice of food were interrelated in explaining the onset of breast cancer symptoms. This was due to the fact that many informants were busy and tight schedules of which they took for granted choosing food merely at their convenience for their daily meals. This unhealthy and imbalanced diet was believed by Malay informants as contributing to the onset of their breast cancer symptoms.

In addition, their working lifestyles did also contribute to poor breastfeeding practices. In relation to this, one informant aged 45 believed that the onset of her breast cancer symptoms could be associated with her inconsistent breastfeeding practice. She described as below:

She narrated she could not consistently breastfeed her son

despite having high production of breastmilk. According to her, she started to inconsistently breastfeed her six months old son when she accepted an offer to enroll in a professional teaching course. She described that she lived on campus during weekdays and only went home during the weekend. This new routine had caused her not only unable to consistently breastfeed her son but also caused soreness in her breasts resulting from high production of breastmilk. For that reason, she decided to stop breastfeeding to avoid 'bengkak susu' for it also caused throbbinglike pain or 'sakit berdenyutdenyut'. After discussing it with her husband, she went to a clinic to consult a doctor on her decision. She was given medication to stop the production of her breastmilk. This was believed had caused the clog in her breast duct area and later developed into the symptom of breast cancer. It was confirmed by the doctor that the development of her breast cancer symptoms was caused by the clog in her breast duct area.

Several informants narrated that they had been informed by the doctors that the onset of their breast cancer symptoms was caused by a clogged in their breast duct area which could be associated with the short duration of breastfeeding.

Food. Several informants associated types of food consumed with breast cancer symptoms. One of the informants aged 42 for instance, enjoyed eating animal's internal organs and charcoal-grilled food for many years before she was diagnosed with Stage 2 breast cancer. She described as follows:

She narrated that she loved eating animal's internal organs like chicken liver, gizzard, and intestines and preferred them to be fried before she was diagnosed with Stage 2 breast cancer. According to the doctor, her preference for the food could have contributed to the development of her breast cancer symptoms. In relation to that, she was advised by the doctor to stop the consumption of the animal's internal organs for they were highly toxic and rich in calories. The doctor explained that an internal organ like the liver helped to carry body waste produced in the body and restore the wastes in the body before being purified. Therefore, each time when she ate any animal's internal organs, it was like indirectly she was eating the toxic waste residing in the organ. This could bring harm to her health and placed her at a higher risk of developing many other illnesses.

Besides, several informants also attributed high consumption of charcoalgrilled food such as satay, *ikan bakar* (grilled fish) and *daging bakar* (grilled beef) as the etiology of breast cancer. Another informant aged 29 for instance, strongly believed that her high consumption of food like satay and *ikan bakar* could have contributed to the growth of cancer cells in her breast area. She said:

She enjoyed eating charcoal-grilled food such as satay and 'ikan bakar'. The doctor told her that the food could have contributed to the development of her breast cancer symptoms for the food contains carcinogen that is believed could trigger the growth of cancer cells in the body.

In another instance, high consumption of *kerang-kerangan* (shellfish), like *Lala*, and *Siput Sedut* was believed to be responsible for the growth of cancer cells in their body. One of breast cancer patients aged 41 said that:

She was told by the doctor that 'kerang-kerangan' like 'Lala' and 'Siput Sedut' contained toxic because many of their habitats were contaminated. The toxicity from the food was believed could have triggered the growth of cancer cells in her body. In relation to that, she was advised by the doctor to avoid eating 'Lala' and 'Siput Sedut' for her to be cured of breast cancer.

Similarly, high consumption of junk food by the informants such as *keropok* (crackers), *jeruk* (pickle) and soft drinks had

contributed to breast cancer illness. They believed that these foods were unhealthy for they contained artificial flavour, preservatives, colours, and high sugar. This could eventually lead to the onset of breast cancer symptoms. One of the informants aged 36 narrated:

She enjoyed eating 'keropok' and 'jeruk' since she was small. She described the habit was unhealthy for the food contained additive and lack of nutrition. She was informed by the doctors that food containing high amounts of additives like preservatives, colours, and flavours were unhealthy in the long run for the substances that could cause food reactions and symptoms of many illnesses including cancer. In addition, she disliked eating vegetables and fruits, thus making her a higher risk of developing many diseases including breast cancer. For her, she believed the high consumption of junk food and lack of vegetables and fruits could have contributed to the development of her breast cancer symptoms.

Working Environment. Another important dimension observed is the working environment. One of the informants, 33 years old cancer patient believed that her working in a weaponry laboratory together with handling chemical waste could have triggered the growth of cancer cells in her breast. She narrated as follow:

According to her, she worked in a weaponry laboratory and was attached to a chemical department that deals with the handling of chemical waste. Although several occupational safety procedures like wearing a mask and tagging the waste according to its classification were observed during the handling of the waste, she did not exclude the risk of harm caused by handling hazardous waste. This was because the presence of electromagnetic waves in the working environment had caused positive charges from hazardous waste and negative charges contained in her body to attract to one another and consequently triggered the growth of cancer cells in her breast. Indeed, she narrated there were several cancer cases reported among laboratory personnel in her workplace a few years ago before she was diagnosed with Stage 2 breast cancer.

The above case highlights the role of the working environment in determining one's health status. It can be suggested that a healthy working environment promotes good health, whilst an unhealthy working environment as a causal factor for breast cancer development.

DISCUSSION

The concept of *saka* as an etiology of illness is not entirely new among the informants.

The saka refers to a spirit helper and guardian (Endicott, 1991) or ancestral possession (Ismail et al., 2010). They associated saka with their breast cancer illness. They believed saka was a family guardian spirit protecting the welfare of family members. The guardian spirit could be their assistant or family helper in undertaking household chores or working at the orchard. In another instance, the saka can be one's guardian spirit in treating one's illness, or medium to assist the traditional healer or *homoh* either during medical consultations, performing rituals or séances or in carrying other duties during treatment procedures. The saka, according to several informants, will only be passed down within one's family tree. It is meant for family welfare and can be inherited. In relation to this, the informants believed that saka can be an etiology for breast cancer symptoms. This takes place when a person refuses to inherit the saka or guardian spirit and decides not to comply with the conditions laid down and agreed in the family i.e. performing rituals to appease the spirits. Another reason for incompliance is due to the fact that the rituals are against Islamic teachings. Many informants refused to carry out or undertake such obligations for fear of shirik. Furthermore, many of the informants interviewed refused to be a healer or bomoh or bidan as part of the condition in accepting the saka. As a result, they could suffer from illness or other forms of misfortunes throughout their lives. The misfortunes include bad luck, accident, spirit attack to other family members, and illness.

Aside from saka, the onset of one's breast cancer symptoms could be attributed to spirit attacks. In Malay cultural beliefs, spirit attacks refer to bodily possession (Chen, 1970). There are several types of spirit attacks such as evil eye, magic, and sihir. In general, there are direct attacks like stepping over the abode of spirits which eventually could cause a person suffering from illness like terkena (Metcalf, 1982), rasuk and hysteria (Radzi et al., 2015; Saparudin et al., 2014), and indirect attack i.e. involving the spirits for instance, malevolent spirit, and applying sihir or magic (Endicott, 1991). There are several factors for this including jealousy, envy or other forms of ill-interpersonal relationships (Ito, 1982). For Malay informants, an ustaz is respected and highly sought after on many occasions of Muslims' lives including matters related to their health and illness for his religious knowledge. This includes the ability to perform spiritual healing to treat illnesses caused by spiritual forces. This is similar to the one observed by Suhami et al. (2015) that the Islamic healing technique had become increasingly popular among Muslim cancer patients to treat the symptoms of their illnesses caused by supernatural agents.

Besides, Malay informants believed that their lifestyles either as career women or students in the past could have contributed to an unhealthy diet and poor breastfeeding practices. An unhealthy diet, for instance, includes their habit of skipping breakfast, having late dinner, eating outside foods, and frequent consumption of processed food. As a result, they were informed by the doctors that their diet was unhealthy for the amount of food consumed in their daily meals was imbalanced and was not following the food pyramid i.e. do not include all classes of food with the suggested amount per serving. In Malay cultural belief, a healthy diet means a balanced diet. The concept of a balanced diet refers to the humoral balance between the elements of *panas-sejuk* (hot-cold) in one's diet. It is believed that excess in any of the humoral elements, be it *panas* or *sejuk* in the diet would cause an imbalance and become unhealthy.

As career women, several informants described the nature of their work as having to work with strict datelines had caused them to develop the habit of eating outside food. They enjoyed eating outside food instead of preparing their meals at home for they were always busy and tight with their working schedule. Thus, the choice of food could be imbalanced and unhealthy. They strongly believed that the food served at restaurants and stalls, for instance, did not comply with the food pyramid concept or principle as recommended by doctors. Most of the foods consumed contained artificial flavour, high calories, and cholesterol, a high amount of sugar and salt, oil, and fewer vegetables. Such unhealthy eating habits could have contributed to their breast cancer symptoms.

Furthermore, Malay informants associated their life as career women together with tight working hours which had hindered them from fully breastfeeding their children for the recommended duration i.e.

two years. They described that the nature of their work that required them to attend professional courses for career development, for instance, had caused them not to be able to breastfeed their children consistently. This was because upon attending the course, they had to stay on campus during weekdays and would only return home over the weekend. They described that when they were on campus, they were neither able to breastfeed their children nor press and store their breastmilk for their children. The inconsistent breastfeeding had caused bengkak susu or soreness in their breast. They were informed by the doctors that the symptom of bengkak susu suffered from inconsistent breastfeeding could cause clogging in their breast duct area. It was believed the clogged area could have caused the growth of cancer cells in the breast areas. From the foregoing discussions, it can be suggested that breastfeeding practice had a protective effect on the risk of developing breast cancer. This finding is similar to the one observed by Huo et al. (2008) among indigenous Nigerian women. He found that there was a reduction of 7% of breast cancer risk among women who breastfed their babies more than 12 months or longer.

The onset of breast cancer symptoms is very much related to the type of food one consumes in his or her daily meals. Food that contains toxic, high calories, carcinogen, and additives are harmful to health and believed by many informants in the study were responsible for breast cancer development. Malay informants strongly believed that consuming animals'

internal organs charcoal-grilled food, kerang-kerangan, and junk food could lead to breast cancer. It is believed that carcinogens from charcoal-grilled food, in particular, the burned parts and toxic from kerang-kerangan for instances, could have contributed to the onset of their breast cancer symptoms. During medical consultation with doctors, they were advised to avoid eating charcoal-grilled food for it could prevent the growth of cancer cells in the body, from becoming aggressive or spreading to the other parts of the body.

Several informants also described that their working environment was unhealthy for they had to work in the laboratory and handle the hazardous chemical waste. It had constantly exposed them to radiation. They believed that the working environment could have contributed to the onset of their breast cancer symptoms. This was further confirmed when they went to seek medical consultation in relation to their breast cancer symptoms. The doctor told them that constant exposure to radiation is harmful to one's health for the presence of electromagnet in the environment could have triggered the growth of cancer cells in the body.

CONCLUSION

Different breast cancer etiologies were identified that could be attributed to supernatural causes such as *saka* and spirit attacks, and non-supernatural causes such as unhealthy lifestyle, imbalanced diet, and exposure to radiation in the workplace. As for supernatural causes, two issues in

relation to spirit attacks were observed. Firstly, *sihir* is still evident and practised in the Malay community in this study. Secondly, the significant role played by religious people like an *ustaz* in dealing with illness caused by *sihir*. Thus, it can be concluded that the various etiologies for breast cancer have contributed to the unique picture of the illness among Malay women in the study.

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