

ORIGINAL ARTICLE

COMPLEMENTARY AND ALTERNATIVE MEDICINE USE AMONG BREAST CANCER PATIENTS IN A TERTIARY HOSPITAL IN MALAYSIA

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ABSTRACT

The Use of Complementary and alternative medicine (CAM) is a common phenomenon among women with breast cancer in Malaysia. This study examines the prevalence, types, influencing factors and source of information regarding CAM among women with breast cancer, using a cross sectional research design. A purposive sampling was used to recruit 103 women with breast cancer who were attending follow up care at the Radiotherapy and Oncology unit of Universiti Kebangsaan Malaysia Medical Centre. Data was gathered through the use of self-administered questionnaires. Ninety one women identified themselves as CAM users while twelve were non users. Among the CAM users, 57(62.6%) were Malays, 27(29.7%) Chinese and 7(7.7%) Indians. The common types of CAM used were vitamins, nutritional supplements and traditional medicines (TM). CAM was used more frequently upon diagnosis (63.7%) and after completion of conventional treatment (97.8%). With regard to decision-making, most of the women (62.6%) did not make the decision to use CAM and were mostly influenced by their husband and mother (67%). Mother (71.4%), husband (67%), and relatives (56%) were the main sources of information and all values showed significant association with CAM use ($p < 0.05$). Prevalence of CAM use, especially TM, was high among the Malay and Chinese ethnic groups. The lack of autonomy in decision-making by the women was the major reason for the use of CAM. The effectiveness and safety of using TM upon diagnosis and in combination with conventional cancer treatment are of concern to the breast surgeons, oncologist and the health care team.

Key words: Complementary and alternative medicine, traditional medicine, breast cancer, Malaysia.

INTRODUCTION

Complementary and Alternative Medicine (CAM) commonly referred to as Traditional and Complementary Medicine (T&CM) in Malaysia is widely used to treat all kinds of diseases including life-threatening diseases such as breast cancer. CAM is defined as a group of diverse health practices, approaches, knowledge and beliefs that incorporate plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to treat, diagnose and prevent illness or maintain well-being¹.

The use of CAM for breast cancer is widely practiced not only in Malaysia but by women in many Asian countries such as China,² Singapore³ and Hong Kong⁴ and in western countries^{5,6}. In the United States, Shen and her colleagues reported high prevalence of 73% CAM use among their patients who had breast cancer⁷. CAM use by breast cancer patients ranged from 67% to 83% in United Kingdom⁶. In a survey conducted in Canada, 66.7%

of the women with breast cancer were found to use CAM⁵. Studies in Asian countries such as China and Singapore, have also reported a high CAM usage of more than 70% in their women population with breast cancer^{3,4,8}. Surveys conducted in China, USA & UK identified a range of 35 to 60% of adults with cancer used more than one type of CAM^{6,7,9}. Approximately one-third of cancer patients were reportedly combining CAM with conventional medicine⁹.

With regard to types of CAM use, studies have shown that breast cancer patients consumed a variety of CAM products including herbs, vitamins, homeopathic remedies and traditional Chinese medicines^{5,8}. Cui et al.⁴ observed that traditional Chinese medicine was the most commonly used CAM therapy among breast cancer patients followed by intake of supplements, physical exercises and acupuncture whereas in US, spiritual practices, vitamins and herbs were the most preferred form of CAM⁷.

The therapeutic benefits of CAM in curing breast cancer have yet to be proven. Despite this lack of evidence on its efficacy, many women still use CAM to treat breast cancer. Malaysians, irrespective of ethnic group, have a strong tradition of using traditional methods for treating breast cancer. In Malaysia, little has been documented on the practice of CAM among women with breast cancer. Moreover, not much is known about who or what influenced women to seek CAM treatment. This study examined the prevalence of CAM use among women with breast cancer, the types of CAM used, pattern of CAM use, who influenced the women to seek CAM and the relationship between socio-demographic characteristics and the use of CAM.

METHODS

A cross-sectional study was carried out among women diagnosed with breast cancer, who were attending follow-up care at the Radiotherapy and Oncology outpatient clinic of University Kebangsaan Medical Centre (UKMMC). UKMMC is a tertiary hospital in Kuala Lumpur, and serves as a referral centre for cancer patients from private and public hospitals in Malaysia.

Ethical approval was obtained from the Research Ethics Committee, University Kebangsaan Malaysia with the approval code: FF-180-2005. Participation in this study was voluntary and written informed consent was obtained from all participants after explaining the purpose of the study. All participants were assured of their confidentiality and the right not to participate or to withdraw at any point in time. The women were assured that any information given on CAM use will not be disclosed to their doctors and their participation or refusal to participate would not affect the treatment they were receiving from the hospital.

Data was collected from December 2005 to June 2006. Purposive sampling was used to recruit the participants. All women who could read in either Malay or English language or both were invited to participate in the study. A self-administered questionnaire was used for data collection. The CAM questionnaire was developed based on established CAM studies^{10,11} and information from literature reviews. The questionnaire was further modified to suit the local population's

understanding by incorporating inputs from content experts and researchers from the university community and nursing profession. A pilot study to validate the questionnaire was carried out on 10 women with breast cancer scheduled for radiotherapy treatment in the Radiotherapy Department of UKMMC. Results of the pilot study were used to refine the final questionnaires and were not included in the data analysis of the final study. Participants in the pilot study were excluded from the final study to avoid contamination validity. The questionnaire was prepared in two languages: Malay and English. Back translation was done to maintain the original essence of the questionnaires and an expert translator was used to ensure the equivalence of the two versions. The questionnaire had four sections: section A consisted of socio-demographic characteristics of the respondents and self identification as a CAM user or non user; Section B consisted of questions on types and pattern of CAM use; section C was on the types of alternative medicine practitioners visited; and section D was on source of information and influencing factors for the use of CAM. Participants who identified themselves as CAM users were asked to proceed to answer sections B, C and D whereas, women who did not use CAM were told to discontinue at that juncture. Descriptive statistics and bivariate analysis using chi-square for relationships were used in the data analysis.

RESULTS

A total of 206 women with breast cancer were approached, however only 103 agreed to participate in this study (a response rate of 50%). The analysis in this study was based on the 103 respondents who returned their questionnaire upon completion.

Demographics

The mean age of the respondents was 51, ranging from 30 to 71 years. Malays were the majority (62.6%) followed by Chinese (29.7%) and Indians (7.7%). All respondents had received formal education, most of them (62.6%) received primary education. The majority (74.7%) of the CAM users had used CAM for more than one year. 43.9% were at stage 3 of their diagnosis when they started using the CAM, while 37.4% were at stage 4. Other demographic details are presented in Table 1.

Table 1. Association of CAM use with socio-demographic characteristics

Demographic	CAM User	Non-CAM User	P
	n=91 n(%)	n=12 n(%)	
Race			
Malay	57(62.6)	6(50.0)	.814
Chinese	27(29.7)	5(41.7)	
Indian	7(7.7)	1(8.3)	
Age			
30 - 40yrs	17(18.7)	5(41.7)	.097
41 - 55yrs	52(57.1)	4(33.3)	
56 - 71yrs	22(24.2)	3(25.0)	
Family income			
<RM1500	20(22.0)	12(100%)	.587
1501 - 3000	52(57.1)	0(0%)	
>3001	19(20.9)	0(0%)	
Education level			
Low	57(62.6)	11(91.7)	.158
High	34(37.4)	1(8.3)	
Duration on CAM use			
< 1 year	23(25.3)	5 (41.7)	.230
> 1 year	68(74.7)	7 (58.3)	
Working status			
Working	55(60.4)	2(16.7)	.122
Not working	36(39.6)	10(83.3)	
Stage diagnosed			
Stage 1	5 (5.5)	2(16.6)	.123
Stage 2	12(13.2)	5(41.7)	
Stage 3	40 (43.9)	5(41.7)	
Stage 4	34 (37.4)	0	

Chi square P<0.05.

Use of CAM

Ninety one (88.3%) of the respondents, identified themselves as CAM users, while twelve (11.7%) were non-CAM users. Bivariate analysis did not show any association between the use of CAM and socio-demographic characteristics (Table 1). Information on decision-making regarding the use of CAM showed that only 37.4% made the decision to use CAM on their own. A significant difference was observed in the relationship between decision-making and CAM use at p<0.01.

Pattern of CAM use

Participants were requested to select any number of patterns of CAM use that applied to them. Many

identified more than one pattern. Concerning the pattern of CAM use, 63.7% had taken CAM before using conventional treatment, 52.7% combined CAM with conventional treatment whereas 97.8% continued the use of CAM after completion of conventional treatment. The use of CAM was found to be slightly lower during conventional treatment (Table 2). The use of traditional medicine (TM) was high among Malay and Chinese ethnic groups. Out of 57 Malay women, 47 had used Malay TM and all 27 Chinese respondents plus one non Chinese woman used Chinese TM, giving a total of 28 users of Chinese TM users in our sample. Seven of the CAM users were Indians and two of them reported to have used traditional medicine (Ayurvedic). The

TM was mostly used while planning for conventional medicine or upon diagnosis (67.5%), undergoing

conventional medical treatment (35.1%) and after completion of conventional medicine (53.2%).

Table 2. Pattern of pharmacologic CAM Use among CAM users (n=91)

Demographic	CAM Use
	n/%
	Yes
Number of types of CAM used (n=91)	
One type of CAM	10 (11.0)
2 types of CAM	60 (65.9)
>more than 2 types of CAM	21 (23.1)
Pattern of CAM use (n=91)	
During Planning	58 (63.7)
During conventional medicine	48 (52.7)
After completion of conventional medicine	89 (97.8)
TM used by ethnic group	
Malay traditional medicine(n=57)	47(82.4)
Chinese traditional medicine(n=27)	27(100)
Indian traditional medicine(n=7)	2 (28.6)
Pattern of TM use (n=77)	
During Planning	52(67.5)
During conventional medicine	27(35.1)
After completion of conventional medicine	41(53.2)

Types of CAM used

In this study, CAM was divided into pharmacologic and non-pharmacologic types. The most popular type of pharmacological CAM used were vitamins (74.7%), nutritional supplements (52.7%), Malay

traditional medicine (51.6%), sea cucumber (31.9%), herbs (34.1%) and traditional Chinese medicine (30.8%). The most popular non-pharmacological CAM was magic spell water (51.6%) (Table 3).

Table 3. Types of CAM used

Types of CAM use					
Pharmacologic	n(%)	Non Pharmacologic	n(%)	Visited health bodies	n(%)
Vitamins	68 (74.7)	Massage	22(24.2)	Ustaz / Sami	19(20.9)
Nutritional Supplements	48(52.7)	Tai Chi	15(16.5)	Nutritionist	16(17.6)
Malay Traditional/Folk medicine	47(51.6)	Touch & movement therapy	12(13.2)	Bomoh/ Shaman	23(25.3)
Chinese Traditional medicine	28(30.8)	Relaxation therapy	14(15.4)	Holistic	10 (9.7)
Herbal medicine	29(31.9)	Reflexology	9(9.9)	Homeopathy	4 (3.9)
Ayurvedic	2(4.4)	Yoga	5 (5.5)	Acupuncture	2 (1.9)
Spiriluna	36 (39.6)	Meditation therapy	3 (3.3)		
Herbs	31(34.1)	Qi Gong	6 (6.6)		
Sea cucumber	29(31.9)	Mind and Emotional therapy	8 (15.4)		
Ginseng	22(24.2)				
Magic spell water	47(51.6)				
Green Tea	17(18.7)				
Aloe Vera	15(16.5)				
Cengkudu (noni fruit)	2(2.2)				
Mushrooms	2(2.2)				
Garlic	4(4.4)				
Alfalfa	4(4.4)				
Shark Cartilage	2(2.2)				

Source of information and influence on CAM use
 Major sources of information about CAM were mother (71.4%), husband (67%), relatives (59.3%) and friends (56%). All these sources had significant association with CAM use ($p < 0.05$). Majority of the women were influenced by their husband (67%) and

mother (67%), making these two the strongest sources of influence in the use of CAM. The association between these influencing factors and the use of CAM were statistically significant at ($p < 0.05$) (Table 4).

Table 4. Influencing factors, Source of Information with CAM Use (n=91)

Influencing factors	CAM Use n(%)	P	Source of Information	CAM Use n(%)	P
Husband			Husband		
Yes	61(67.0)	.018*	Yes	61(67.0)	.018*
No	30(33.0)		No	30(33.0)	
Father			Mother		
Yes	3(3.3)	.523	Yes	65(71.4)	.016*
No	88(96.7)		No	26(28.6)	
Mother			Father		
Yes	61(67.0)	.018*	Yes	14(15.4)	.144
No	30(33.0)		No	77(84.6)	
Children			Siblings		
Yes	7(7.7)	.320	Yes	4 (4.4)	.459
No	84(92.3)		No	87(95.6)	
Siblings			Friends		
Yes	8(8.8)	.285	Yes	51(56%)	.002*
No	83(91.2)		No	40(44%)	
Friends			Patients with breast cancer		
Yes	13(14.3)	.161	Yes	16(17.6)	.937
No	78(85.7)		No	75(82.4)	
Doctors			Relatives		
Yes	3(3.3)	.523	Yes	54(59.3)	.004*
No	88(96.7)		No	37(40.7)	
Relatives			Media		
Yes	19(14.3)	.461	Yes	16(17.6)	.417
No	71(85.7)		No	75(82.4)	
			Internet		
			Yes	10(11.0)	.144
			No	81(89.0)	
			Health care staffs		
			Yes	8(8.8%)	.285
			No	83(91.2)	

Significant P<0.05*.

DISCUSSION

Studies carried out globally on CAM use have clearly demonstrated that CAM is popular and commonly utilized by women with breast cancer¹². In this study, a high prevalence rate (88.3%) of CAM

use among women with breast cancer was identified, supporting the findings from other countries^{2,3,13,14}. Malaysia has a strong tradition of TM use, and this fact is reflected in the findings of this study among women from the three main ethnic groups of Malay, Chinese and Indian.

The most common pharmacologic CAM used were vitamins and nutritional supplements, similar to the practice reported among Caucasian women^{5,7}. This practice of using vitamins and nutritional supplements as compliments to conventional medicine will be of less worry to breast surgeons and the oncologist since they are not used as alternatives to conventional cancer treatment. Furthermore, vitamins and supplements are used mainly to boost the immune system and to stay healthy¹⁴. Besides vitamins and supplements, most of the respondents preferred the TM. In this study, the women from Malay and Chinese ethnic groups were found to be strong users of their ethnic TM. The trend of using Chinese TM among Chinese women with breast cancer has been widely reported^{2,3,4}. Very few studies have highlighted the use of Malay TM among Malay women^{15,16}. Although the use of TM for breast cancer treatment is not supported by scientific evidence, it is widely practiced among Malay and Chinese ethnic groups, either in combination with conventional medicine or as an alternative to conventional medicine. On the other hand, the Indian TM known as Ayurvedic, which is very ancient in origin, appears to be less popular among Indian respondents and this has also been reported in a study done in Singapore³. However, the sample size of the Indian ethnic group in this study is too small to draw a concrete conclusion. Specific to breast cancer, it is believed the use of TM by different ethnic groups in Malaysia is probably due to its wide acceptance by Asians as a cure for many critical diseases and most likely due to strong cultural beliefs and practices¹³.

In relation to pattern of TM use, TM was used at diagnosis (67.5%), irrespective of stage, and in combination with conventional medicine (35.1%). This is a serious concern to medical practitioners because the women prefer to first treat their breast cancer with TM before seeking conventional medicine. Many assumptions have been made as to why women seek TM before conventional medicine, given that all forms of CAM lack adequate evidence for the cure of any form of cancer^{5,6,17,18}. The first reason could be poor information received on the advancements and benefits of conventional medicine¹⁹. Secondly, there is less fear about TM as it is non invasive compared to conventional medicine, which can involve the removal of the breast¹⁸. Women do not want to lose their breast for fear of losing their femininity or losing their husband to another woman²⁰. Thus, many women are left with little choice but to seek TM, which claims to be less invasive and free from side-

effects. Thirdly, many believe that TM provides hope for cure, relieves symptoms and improves quality of life²¹. Furthermore, women who did not believe in TM and had undergone conventional treatment were still found to succumb to death²¹. The strong usage of TM at diagnosis could explain the reason for the high incidences of progressive breast cancers and a low survival rate among Malaysian women with breast cancer²². The use of TM by Malaysian women to treat breast cancer remains an issue of concern for Malaysian oncologist and breast surgeons. This is because, despite the advancements in conventional medicine, women are still lured into the use of TM, causing many to delay conventional treatment and to present at late stage^{20,21}. The practice of combining TM or other forms of CAM with conventional medicine is widely reported among women with breast cancer²³⁻²⁵. Such complementary approach is not accepted by doctors because it is not evidence based.

Sources of information about CAM were mostly from husbands, mothers, relatives and friends. This is supported by studies done locally^{15,16,25} and in other countries^{7,12}. This study also revealed very strong influence of husbands and mothers especially in regards to the women's decision (62.6%) to use CAM. The decision to use CAM was mostly made by family members rather than the women themselves. This could be due to strong family ties that have been an aspect of Malaysian culture through decades¹⁵. Major decision-making with regards to breast cancer treatment is still referred to the head of their households²⁰. The issue of women's autonomy in decision-making and in making the right choices or in the planning for breast cancer treatment has been a major concern among the Malaysian medical doctors^{15,22}.

The nature of associations between demographic factors and CAM use in this study were different from those reported in previous studies, which have repeatedly reported that CAM use was associated with younger age group^{2,5}, low educational level and high income group^{15,16} and patients with high level of education¹⁴. However, in this study, women irrespective of age group, education level, family income, work status, treatment stage and stage of cancer at diagnosis did not differ significantly with regard to CAM use. This difference between this study findings and previous studies could be due to the long and strong practice of TM in Malaysia and also due to

differences in cultural beliefs and practices between countries and ethnic groups.

Limitations of this study include small sample size and unequal representation of the three ethnic groups. This could affect generalization to the larger population. The main reason for the low response rate is that most of the women who were approached declined participation for fear of being identified as CAM users, as it may affect their relationship with their doctors. The doctors are usually not happy with their clients who combine conventional treatment with CAM. This makes most of the women to deny their use of CAM. Future studies that utilize a qualitative approach could provide a greater insight into women's experience and benefits of using TM and other forms of CAM. The phenomena of some breast cancer patients opting for CAM upon diagnosis and reverting back to modern medicine and vice versa should also be explored. There is also a need to identify the different types of herbs used in order to provide a clearer picture of CAM use among women with breast cancer. Spiritual healing is another form of CAM which is commonly used by patients with cancer but was not considered in this study.

CONCLUSION

Prevalence of CAM use, especially TM, was high among women with breast cancer from Malay and Chinese ethnic groups. Most of the women were lured into the use of TM and other forms of CAM by their family members and friends, who wield a strong influence over them. The women lacked autonomy in decision-making and this was mostly due to strong cultural beliefs and practices around family and women's right. Studies on women's autonomy in making decisions regarding the right choices for breast cancer treatment and use of TM as an alternative are limited. The effectiveness and safety of using TM upon diagnosis and in combination with conventional cancer treatment are of concern to breast surgeons, oncologist and health care team. Findings from this study will add to the body of knowledge on CAM use among women with breast cancer, and thus, could provide a basis for future studies.

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