

Attitudes towards complementary alternative medicine among Malaysian adults

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ABSTRACT

Complementary and alternative medicine (CAM) has become more popular in recent years. Psychosocial factors such as attitude towards CAM has been suggested as a predictor of CAM use in certain populations. This study investigated the association between attitude and CAM use among the local population. The questionnaire-based survey was performed prospectively among adults aged ≥ 18 years, with informed consent. Results demonstrated that a high number of respondents admitted to CAM use ($n=297/417$, 71.2%) compared with those that did not use CAM ($n=117/417$, 28.1%). The use of herbal products was the most popular CAM ($n=227$, 54.44%). The main reason for CAM use was recommendation from friends and family ($n=217$, 52%). The main reason for not using CAM was due to satisfaction with conventional medicines ($n=106$, 25.4%). Attitude scores demonstrated that respondents felt positive towards the need for pharmacists to equip themselves with sufficient CAM knowledge (3.04 ± 0.032 , maximum; 4). There was a positive correlation between the number of CAM used and total attitude score ($p=0.102$, $p=0.036$). In conclusion, personal attitude influenced their likelihood of using CAM among the local population. The need for appropriate advice on CAM use is reflected in the need for pharmacists' community support.

INTRODUCTION

Complementary and alternative medicine (CAM) is a diverse group of traditional practices comprised mainly of herbal and dietary supplement, acupuncture or Ayurveda, energy therapies, body-based and mind body-based therapies. The National Policy of Traditional and Complementary Medicine Malaysia (MOH, 2007) has previously stated that traditional and complementary medicines should co-exist with modern medicines and contribute towards enhancing and improving the quality of life of Malaysians. This comes in view of the popular use of CAM among the local population. In Malaysia, CAM has been used widely among cancer (Farooqui *et al.*, 2016),

asthmatic (Alshagga *et al.*, 2011), hypertensive (Mahfudz and Chan, 2005) and diabetic (Ching *et al.*, 2013) patients. Siti and colleagues reported that 69% of Malaysians used CAM in their lifetime (2009). Biological based therapies which include the use of herbs and animal parts, vitamins and supplements, diet based therapy and application of beauty or hygiene products are the most frequently used CAM in Malaysia. Studies in neighboring countries support the prevalent use of CAM where in Singapore 45% of the population use CAM (WHO, 1998), 30% in Thailand (WHO, 1999) and 40% in Indonesia (Ritiasa, 2000).

The use of CAM may be triggered by various factors (Hassan *et al.*, 2010) for example; discontent with conventional medicine, the need for ideological congruence, and the need for personal control (Hasan *et al.*, 2010). Other reasons for seeking CAM treatments are chronic illness which are not responding well to conventional medical treatment (e.g., back pain, arthritis) and feeling a greater sense of control over personal health when using CAM (McFadden *et al.*, 2010).

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Demographic, cultural factors and the perception that CAM is more effective than conventional drugs are also among reasons for CAM usage (Carlson and Krahn, 2006). However, one problem with general characterizations of why people use CAM is that such representations overlook different motivations for initiating CAM and sustaining CAM use over time.

It is also essential to consider psychosocial factors towards CAM when assessing why it is chosen as a treatment. Psychosocial factors such as attitudes, beliefs and motivations have been recently identified as a possible predictor of medication behavior (McFadden *et al.*, 2010). The decision to seek CAM treatment may be also due to the attitude towards health in general. A belief in being able to affect personal health, rather than attributing health to others (e.g., doctors, family) or chance, may influence the way a person actively contributes to their own health (McFadden *et al.*, 2010). It is important to have a basic understanding of CAM before using it and that patients may disregard or even avoid doctors and healthcare professionals who do not understand their health beliefs and attitudes (Koh *et al.*, 2003).

CAM are usually more expensive than conventional medicines and yet the public are willing to pay for it. This raises questions on psychosocial factors underlying their decisions to seek therapies from CAM. Currently, very little information is available on the general use of CAM and reasons for their popularity in the local setting. We hypothesize that the use of CAM is associated to their attitude towards CAM. Thus, this study was performed to account the attitudes of Malaysian adults towards the use of CAM and to further explore reasons that affect the decision to seek alternative therapies.

MATERIAL AND METHODS

Study design

This was a prospective cross-sectional study performed among the public in Malaysia. The study was performed from July to November 2016 using a questionnaire. The respondents were adults ≥ 18 years of age, where verbal informed consent was obtained before the interview. Convenient sampling was employed and during the study we approached a total of 417 individuals, slightly higher than the calculated 384 individuals recommended. The sample size was calculated based on Krejcie and Morgan (1970). A slightly higher sample of 417 individuals was collected to account for the possibility of incomplete questionnaires. Ethical approval was obtained from the University Kebangsaan Malaysia hospital research and ethics committee (NF-RES-2016-19).

Questionnaire

The questionnaire consisted of three sections. The first section contained demographic information such as age, gender and ethnicity. Information on whether a family member was working in a health-related field, long-term illness, taking prescribed medicines and perception of general health were also collected. The second section was based on the use of CAM. Data

on types of CAM were collected and categorized based on six types (Ching *et al.*, 2013): herbal products, alternative medical system, energy, manipulative and body based systems, mind-body interventions and others. Reasons for using or not using CAM were identified based on previous studies (Koh *et al.*, 2003). The options for reasons for using CAM were: recommended by friends or family, recommended by medical practitioner or pharmacist, dissatisfaction with conventional medicine, to treat health problems, for maintenance of general health, holistic orientation toward health, to relieve stress, natural and therefore safer, greater control over healthcare decisions and not applicable. The options for reasons for not using CAM were: lack of evidence of effectiveness, satisfied with conventional medicines, more expensive than conventional medicine, longer time to see effect and others. The third section was based on attitudes towards CAM (Yom and Lee, 2008). This was based on twelve statements related to attitude towards CAM usage. The statements were ranked on a four-point Likert scale from 1: strongly disagree to 4: strongly agree. The total maximum score was 48. A higher score indicated a more positive attitude towards CAM usage.

Statistical analyses

Analysis was performed using the statistical package SPSS version 22.0 (IBM; Armonk, NY) (Ngadimon *et al.*, 2015). Descriptive statistics, such as mean, standard deviation (SD) and frequency were used to analyze continuous and categorical data, such as respondents' demographics and their attitude level. A T-test or ANOVA was used to compare means between two or more groups, respectively. A Chi-squared test was used to determine association between categorical data. A significance level of $p < 0.05$ was considered statistically significant.

RESULTS

Demographic data

A total of 417 respondents were enrolled in this study. Majority of the respondents were Malay ($n=311$, 74.6%) followed by Chinese ($n=63$, 15.1%), Indian ($n=25$, 6.0%) and others ($n=18$, 4.3%). The oldest respondent in this study was 66 years old while the youngest respondent was 18 years old. The mean age of the respondents was 22.06 ± 6.0 years. A small number of respondents admitted to having long term chronic illnesses such as asthma and diabetes ($n=39$, 9.4%), with a few taking prescribed medications ($n=87$, 20.9%). Respondents perceived health was found to be 'excellent' in 15.1% ($n=63$), 'very good' in 34.5% ($n=144$), 'good' in 43.6% ($n=182$) and 'fair' in 6.7% ($n=28$). No respondents perceived their health to be poor.

Use of CAM

The number of respondents admitting to CAM use was found to be higher ($n=297$, 71.2%) compared to those who did not use CAM ($n=117$, 28.1%). The use of herbal products was identified most popular among the respondents ($n=227$, 54.44%) (Table 1). Other types of herbal CAM used were honey, *Habatus*

sauda, olive oil, herbal supplement, sea cucumber, ginkgo, curcumin, papaya leaf and lingzhi mushroom. On the other hand, other CAM used among the respondents was noted as Islamic medicine. Reasons for using or not using CAM are shown in Table 2. Respondents were allowed to choose more than one option where necessary.

Table 1: Types of CAM used among the study population.

	Types of CAM	n%	
1.	Herbal products		
	-Bitter gourd	81(19.4)	
	-Garlic	134(32.1)	
	-Java tea	56(13.4)	
	-Andrographis	6(1.4)	
	-Basil leaf	22(5.3)	
	-Ginseng	78(18.7)	
	-Others	27(6.5)	
	2.	Alternative medical systems	
		-Ayurveda	39(9.4)
3.	Acupuncture	63(15.1)	
	Energy		
4.	- Gong/ Reiki	43(10.3)	
	Manipulative and body-based systems		
5.	-Massage Bed	154(36.9)	
	-Reflexology	96(23.0)	
	Mind-body interventions		
6.	-Yoga	91(21.8)	
	Others	37(8.9)	

Table 2: Reasons for using/ not using CAM among the study population.

Reasons for using CAM	n(%)
Recommended by friends or family	217(52.0)
Recommended by medical practitioner or pharmacist	68(16.3)
Dissatisfaction with conventional medicine	25(6.0)
To treat health problem	105(25.2)
For maintenance of general health	136(32.6)
Holistic orientation towards health	31(7.4)
To relieve stress	19(4.6)
Natural, and therefore safer	98(23.5)
Greater control over health care decisions	17(4.1)
Not applicable	19(4.6)
Reasons for not using CAM	n (%)
Lack of evidence of effectiveness	97(23.3)
Satisfied with conventional medicines	106(25.4)
More expensive than conventional medicine	35(8.4)
Longer time to see effect	79(18.9)
Others	29(7.0)

Attitude towards CAM

The results about attitude towards CAM are presented in Table 3. A higher score indicated positive attitude towards CAM. The highest mean score was observed for statements 'Pharmacist should be able to advise their patients about commonly used CAM methods' (3.04 ± 0.032 , maximum score; 4).

The lowest mean score was observed for the statement 'CAM should only be used as a last resort when conventional medicine did not work' ($1.42 \pm SD 0.727$).

Further analysis demonstrated that there was a positive correlation between the number of CAM use and total attitude score ($\rho=0.102$, $p=0.036$). Respondents that were taking CAM were also found to have a higher attitude score ($t=-2.170$, $df=415$, $p=0.031$) than those that were not taking CAM.

Table 3: Attitude score of respondents towards CAM use (n=417).

Characteristics	Mean SD
CAM can be dangerous in that it may prevent people from getting proper treatment	2.41±0.726
CAM should only be used as a last resort when conventional medicine did not work	1.42±0.727
CAM could be a supplement to Western medicine	3.01±0.031
CAM builds up the body's own defenses, leading to a permanent cure	2.62±0.034
It feels good psychologically to use CAM	2.79±0.030
CAM that has not tested in a scientific manner should be discouraged	3.01±0.041
CAM is a threat to public health	2.16±0.033
Pharmacist should be able to advise their patients about commonly used CAM methods	3.04±0.032
Most CAM stimulate the body's natural therapeutic powers	2.81±0.027
CAM should be bound by law	2.84±0.034
CAM should be under the supervision of a physician	3.01±0.032
It is worthwhile to try CAM before going to medical professionals.	2.39±0.037

DISCUSSION

There has been an increase in the use of CAM around the world to treat chronic, recurrent, or serious illness (Yeh *et al.*, 2002; Li and Leung, 2014). The desire among human beings to explore beyond the realms of modern conventional medical treatment is frequently observed. Similarly, Malaysia has a strong tradition of CAM usage (Azizand Tey, 2009), as supported by the findings of this study. All ethnics in Malaysia were found to use CAM, similar to previous work (Siti *et al.*, 2009). Despite the majority admitting to having good health, the use of CAM is still relatively high, demonstrating that perceived health does not determine the need for use of CAM among the local population. This is in contrast to previous findings that demonstrates CAM utilization was higher for people with poor health, chronic conditions, and low functional status (Ong *et al.*, 2002).

The reason for CAM use may vary among different populations. Interestingly, dissatisfaction with modern conventional medicine was not necessarily the reason people turned to CAM (Koh *et al.*, 2003). Although the majority of the study population was found to use CAM, those who were taking prescribed medication were also among CAM users. From a previous study among pharmacists, the main reason for CAM use was to maintain general health and promote well-being (Koh *et al.*, 2003). However, in this current work, we found that recommendations of friends and family were the main reasons of CAM use. It was also demonstrated that belief played a major role in its use, as respondents believed that CAM was natural and safer, similar to previous findings (Firenzuoli and Gori, 2007). Among the various CAM used, herbal medicine was most the common choice (Firenzuoli and Gori, 2007), which was representative of the current population. While they recognized its benefits, unfortunately not many were aware that CAM is not without its risks (Wong *et al.*, 2012). In the current study, it was demonstrated that CAM users were more likely to have a positive attitude towards it. Users of CAM are known to indicate more positive attribute towards CAM in treating their illness (Carlson and Krahn,

2006). Thus, personal attributes and opinions also influence their likelihood of using herbal medicines. These findings are important as positive personal attributes towards herbal medicines may help healthcare providers identify patients at increased risk of CAM usage. These patients would be strong candidates for receiving guidance on safe use of herbal or alternative medicines (Azizand Tey, 2009).

It was revealed during the results analyses that respondents agreed with many of the fundamental tenets of CAM, such as 'pharmacist should be able to advise their patients about commonly used CAM methods'. The need for pharmacists to be actively involved in CAM use and providing guidance is seemingly appropriate. Unfortunately, it has been demonstrated that many pharmacists are still ill-equipped with CAM knowledge (Chen *et al.*, 2016). With the increase in CAM usage among the population, the need for ensuring adequate counseling on its use is highly recommended. The use of CAM among higher-risk patients such as elderly and organ failure patients poses a potential safety concern that could be mitigated by appropriate counseling. Instruments using psychometric properties in order to assess pharmacists' counseling behavior on herbal and dietary supplement products have been recently developed (Lin *et al.*, 2010). The instrument can be used as a tool for quality assurance and training assessment to ensure that a standard level of patient counseling on herbal and dietary supplements is being provided.

Our findings confirm the high prevalence of CAM usage by Malaysian adults was significantly associated with a positive attitude towards CAM. However, with all questionnaire-based studies, the findings of this study were limited to the feedback of respondents to survey questions. Therefore, generalization of the results should be done with caution. To that end, identifying attitudes towards CAM may help health care providers identify patients in need of additional guidance on their safe use.

CONCLUSION

Respondents' personal attitudes influence their likelihood of using CAM. Those with a positive attitude towards CAM were more likely to use CAM among the local population. These findings are important because knowledge of the predictors of CAM usage may help healthcare providers to identify patients at increased risk of CAM use. These patients would be candidates for receiving guidance on safe use of CAM.

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REFERENCES

- Alshagga MA, Al-Dubai SA, Muhamad Faiq SS, Yusuf AA. Use of complementary and alternative medicine among asthmatic patients in primary care clinics in Malaysia. *Ann Thorac Med*, 2011; 6:115–119.
- Aziz Z, Tey NP. Herbal medicines: Prevalence and predictors of use among Malaysian adults. *Complement Ther Med*, 2009; 17:44–50.
- Carlson MJ, Krahn G. Use of complementary and alternative medicine practitioners by people with physical disabilities: estimates from a National US Survey. *Disabil Rehabil*, 2006; 28:505–13.

Chen X, Ung CO, Hu H, Liu X, Zhao J, Hu Y, Li P, Yang Q. Community pharmacists' perceptions about pharmaceutical care of traditional medicine products: a questionnaire-based cross-sectional study in Guangzhou, China. *Evid-Based Compl Alt*, 2016; 2016:1-16.

Ching SM, Zakaria ZA, Paimin F, Jalalian M. Complementary alternative medicine use among patients with type 2 diabetes mellitus in the primary care setting: a cross-sectional study in Malaysia. *BMC Complement Altern Med*, 2013; 13:148.

Farooqui M, Hassali MA, Abdul Shatar AK, Farooqui MA, Saleem F, Haq NU, Othman CN. Use of complementary and alternative medicines among Malaysian cancer patients: A descriptive study. *J Tradit Complement*, 2016; 6: 321–326.

Firenzuoli F, Gori L. Herbal medicine today: clinical and research issues. *Evid-Based Compl Alt*, 2007;4:37-40.

Hasan SS, See CK, Choong CLK, Ahmed SI, Ahmadi K, Anwar M. Reasons, perceived efficacy, and factors associated with complementary and alternative medicine use among Malaysian patients with HIV/AIDS. *J Altern Complement Med*, 2010; 16:1171–1176.

Koh HL, Teo HH, Ng HL. Pharmacists' patterns of use, knowledge, and attitudes toward complementary and alternative medicine. *J Altern Complement Med*, 2003; 9:51–63.

Krejcie RV, Morgan DW. Determining sample size for research activities. *Educ Psychol Meas*, 1970; 30:607-610.

Li L, Leung PS. Use of herbal medicines and natural products: An alternative approach to overcoming the apoptotic resistance of pancreatic cancer. *Int J Biochem Cell B*, 2014;31:224-236.

Lin HW, Pickard AS, Mahady GB, Karabatsos G, Crawford SY, Popovich NG. An instrument to evaluate pharmacists' patient counseling on herbal and dietary supplements. *Am J Pharm Educ*, 2010; 74:192.

Mahfudz S, Chan SC. Use of complementary medicine amongst hypertensive patients in a public primary care clinic in Ipoh. *Med J Malaysia*, 2005; 60:454-9.

Mcfadden KL, Hernández TD, Ito TA. Attitudes toward complementary and alternative medicine influence. *Explore-NY*, 2010; 6:380–388.

MOH. 2007. National policy of traditional and complementary medicine. Kuala Lumpur, Malaysia: Ministry of Health Malaysia.

Ngadimon IW, Islahudin F, Hatah E, Mohamed Shah N, Makmor-Bakry M. Antibiotic and shared-decision making preferences among adolescents in Malaysia. *Patient Prefer Adher*, 2015; 9:665-673.

Ong CK, Petersen S, Bodeke GC, Stewart-Brown S. Health status of people using complementary and alternative medical practitioner services in 4 English counties. *Am J Public Health*, 2002; 92:1653-1656.

Ritiasa K. 2000. Jamu and traditional medicine practices in Indonesia. *Proceedings of a WHO International Symposium 2000*.

Siti ZM, Tahir A, Farah AI, Fazlin SMA, Sondi S, Azman AH, Maimunah AH, Haniza MA, SitiHaslinda MD, Zulkarnain AK, Zakiah WC, Wan Zaleha WC. Use of traditional and complementary medicine in Malaysia: a baseline study. *Complement Ther Med*, 2009; 17:292–299.

Wong WW, Gabriel A, Maxwell GP, Gupta SC. Bleeding risks of herbal, homeopathic, and dietary supplements: a hidden nightmare for plastic surgeons?. *Aesthet Surg J*, 2012; 32:332-346.

WHO. 1998. Technical briefing on traditional medicine. Manila, Philippines: World Health Organization.

WHO. 1999. Herbal medicine practice in Thailand. Kobe, Japan: World Health Organization.

Yeh GY, Eisenberg DM, Davis RB, Phillips RS. Use of complementary and alternative medicine among persons with diabetes mellitus: Results of a national survey. *Am J Public Health*, 2002; 92:1648–1652.

Yom YH, Lee KE. A comparison of the knowledge of, experience with and attitudes towards complementary and alternative medicine between nurses and patients in Korea. *J Clin Nurs*, 2008; 17:2565–2572.

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