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It is the paper published as:

Author(s): Ang, S. ; Wilkinson, J.M.

Title: A preliminary study of complementary and alternative medicine (CAM) practitioners in Singapore

Journal: Complementary Therapies in Medicine

ISSN: 0965-2299

Year: 2013

Pages: 42 - 49

Volume: 21

Issue: 1

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URLs:

FT: <http://dx.doi.org/10.1016/j.ctim.2012.10.004>

PL: http://researchoutput.csu.edu.au/R/-?func=dbin-jump-full&object_id=41717&local_base=GEN01-CSU01

Profile & Health Attitudes of Complementary & Alternative Medicine (CAM) Practitioners in Singapore

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Source of Grant: None

Word Count: 3,488 words excluding Abstract & Tables

Keywords: complementary medicine; practitioners; workforce;

Abstract

Objectives: To investigate the profile and health attitudes of complementary and alternative medicine (CAM) practitioners in Singapore.

Design & Setting: A descriptive survey with convenience and snowball sampling were used. An anonymous self-administered survey was sent to 130 practitioners found in publicly accessible online practitioner registers, groups, and directories practicing CAM modalities from April 2010 to October 2010.

Main outcome measures: Participants' demographics, business structure, and attitudes towards health, CAM and orthodox medicine (OM).

Results: Response rate was 32%. The typical CAM practitioner in Singapore is a middle-aged female who specialises in more than one CAM modality. Almost half (45%) of the participants possessed a degree and massage is the most common practiced modality. Participants practiced an average of 2.6 therapies and group-practice size ranged from 2-15 practitioners. Most participants (69%) experienced a radical change in job types to become a CAM practitioner and their previous jobs suggest a slightly middle-class profile. The cost and duration of initial consultation and treatment ranged from SG\$20- SG\$345 and 30min-120min respectively. The most common source of CAM information were seminars/lectures/workshops (76%). Communication and referral between CAM and orthodox medicine practitioners is high (>70%). Participants perceived CAM to be more suitable for disease prevention than treatment of serious medical conditions.

Conclusions: This study provides an important base-line data that will help future researchers explore further into CAM practitioners' business aspirations, and attitudes towards regulation and integration with OM.

Introduction

Complementary and alternative medicine (CAM) is defined as ‘group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine’.¹⁻² In Singapore, the general population use CAM primarily for health maintenance and minor conditions while patient groups (e.g. breast cancer, paediatric cancer, asthma, and Parkinson’s disease patients) use CAM to relieve disease symptoms, boost the immune system and complement orthodox medicine (OM) treatments.³⁻⁵ Traditional medical systems such as traditional Chinese medicine (TCM), Jamu and Ayurveda were the most popular. Most users self-medicated rather than consulted with a CAM practitioner and perceived CAM to be effective for its desired purpose.⁶⁻⁷

The rapid growth of CAM has generated much interest from OM practitioners and the government. OM practitioners’ attitude towards CAM is reported to be generally positive except for the concern for potential herb-drug interactions.⁸⁻¹¹ OM practitioners highlighted the need to include more CAM components into OM training so they can better counsel their patients on CAM use.¹²⁻¹⁴

Currently, CAM practitioners in Singapore do not need to register with the Singapore Ministry of Health in order to practice. However, TCM practitioners who wish to practice TCM and acupuncture must register with the TCM Practitioners Board (TCMPB) and possess valid practice certificates. Successful practitioners will also be allowed to provide tui na (a form of Chinese manipulative therapy often used in conjunction with acupuncture) as complementary outpatient treatment in hospitals and nursing homes.¹⁵ Massage therapists who wish to work in a massage establishment must register with the Singapore Police Force, possess professional industry qualifications, and pass an annual sexually transmitted disease

medical screening.¹⁶ Chiropractic is the only CAM modality in Singapore whose practitioners have taken the initiative to form the Chiropractic Association (Singapore) and implement self regulation as a move towards state recognition.¹⁷ For CAM products such as Chinese herbal medicines, other traditional medicines and health supplements, approval must be sought from The Health Sciences Authority before these products can be sold in Singapore.¹⁸

More studies have been conducted on the prevalence and attitudes towards CAM from the perspective of users and OM practitioners compared to studies that focused on CAM practitioners. In Singapore, no study has yet been conducted on the profile and health attitudes of CAM practitioners. Studies in this area are important because OM practitioners may need to interact more frequently with CAM practitioners in view of CAM's increasing prevalence and growth as part of the private health care system. Thus, this study aims to explore this area and answer the following questions:

- (1) What is the demographical and business profile of CAM practitioners in Singapore?
- (2) What are their general beliefs and attitudes towards healthcare, CAM, and OM?

Methods

Study design and settings

This study employed a descriptive study design to capture the descriptive characteristics such as CAM practitioners' demographics, business structure, and attitudes towards health, CAM and OM. Convenience and snowball sampling methods were used. Sampling consisted of CAM practitioners found in publicly accessible online practitioner registers, groups, and directories practicing modalities defined as CAM by The National Center for Complementary and Alternative Medicine (NCCAM).¹

Measurements

A comprehensive questionnaire informed by a review of the literature was designed to capture the profile and health attitudes of CAM practitioners in Singapore. Six main areas were explored: demographics; business structure and operation; CAM practice questions; communication and referral; and views about CAM and OM. The questionnaire contained 29 questions in 8 pages and was expected to take about 15 min to complete. Only structured questions were used and they could be answered by either checking the appropriate option(s), or directly entering the response(s) into the fields. The last question used a modified CAM Health Belief Questionnaire (CHBQ)¹⁹ that contains the original 10 statements with 10 additional statements on CAM regulation and training. Each statement used the same 7-point response scale, with higher scores corresponding to stronger agreement with the statement. A total score of 70 was taken as a 'neutral' response. The questionnaire was piloted with five practitioners and no modifications were needed.

Data collection

Ethical approval for the study was granted by Charles Sturt University's Ethics in Human Research Committee before piloting and data collection. All participants received the self-administered questionnaire with a cover page stating that their participation was voluntary and anonymous. By deciding to participate and answer the questionnaire, participants have granted the researcher their consent of participation. Participants can choose to answer the questionnaire in softcopy or hardcopy to increase the response rate. Completed questionnaires were returned by email, fax or normal post. Both softcopy and hardcopy questionnaires contained the same questions and data entry was carried out in the same format to ensure continuity of the data and prevent any methodological-based errors. No names or other identifying information was collected during the survey conducted from April 2010 to October 2010.

Data analysis

All data were analysed using descriptive statistics due to the low number (42) of responses. For questions where participants provided a range but a specific figure was required (such as 'Age'), the mid-point of the range was used. For questions where the recommended number of choices were exceeded (such as choosing 6 'Reasons for practicing CAM' instead of the recommended 3 main reasons), all choices were included in the final data analysis to reflect the full range of responses. Statements 8-13 and 20 of the modified CHBQ were reverse-coded, so their values were reversed when performing data analysis.

Results

Demographics

A total of 42 questionnaires out of 130 were returned, giving a response rate of 32%. Almost three-quarters (71%) of the participants were female and 29% were male. The youngest participant was 23 years, the oldest 62 years, and the mean age was 40.7 years (5% non-response). Slightly more than half (52%) of the participants were married and 36% were single. Participants had been practicing CAM from 0.5 to 28 years, with mean years-in-practice being 7.3 (5% non-response). See Table 1.

Participants practiced all 17 CAM modalities listed in the questionnaire. The number of therapies practiced by participants ranged from 1 to 10, with mean number of therapies being 2.6. The most common modality was massage (50%), followed by counseling (24%), nutritional advice (21%), aromatherapy (21%), and meditation/relaxation techniques (19%). Massage techniques practiced by participants included Swedish massage, sports massage, lymphatic massage, cranial sacral therapy, reflexology, shiatsu, and tuina.

More than half (60%) of participants practiced more than 1 modality. Over three-quarters (77%) of participants who practiced only 1 modality specialised mostly in body-based manipulations such as massage, osteopathy, and chiropractic. Other (19%) modalities practiced by the participants included quantum touch, Emmet technique, Bowen technique, channeling, energy healing, yoga, biofeedback and bioresonance. The total number of modalities practiced by participants in this study was 33. This included the 17 modalities listed in questionnaire and 16 modalities reported by participants under “Others”.

Almost half of the participants (45%) had a degree or postgraduate education, 38% had diplomas or advanced diplomas, and 17% had certificates. The majority (91%) of participants worked in another area before becoming a CAM practitioner. Participants' previous careers were varied, with almost a quarter (24%) previously in PMETs (a broad category that included professionals, managers, executives and technicians), followed by nursing/allied health (14%), education/teaching (12%) and secretarial/clerical (12%). Other jobs (21%) listed by participants included lawyer, dancer, buyer, banking finance, etc.

Business structure

Over half of the participants were self-employed (64%), practiced full time (60%), and did not work from home (79%). Half of the participants (50%) practiced in a group setting (2% non-response). Within this group, 57% practiced only with other CAM practitioners (CAM group) while 19% practiced with OM and CAM practitioners (integrative group) (24% non-response).

The group-practice size ranged from 2 to 15 (mean = 5.1) in the CAM group and 0 to 5 (mean = 3.3) in the integrative group. Less than a quarter (21%) practiced within a medical centre. Home-service was provided by 43% of participants and a third (33%) supplemented their income with non-CAM related work.

The cost of initial consultation and treatment ranged from SG\$20 to SG\$345 with a mean of SG\$133.90 (17% non-response). Subsequent treatment costs were lower and ranged from SG\$10 to SG\$300 with mean of SG\$117 (17% non-response). The duration of initial consultation and treatment ranged from 30 min to 120 min, with a mean of 66 min (7% non-response). Subsequent treatments ranged from 15 min to 120 min, with a mean of 52 min (12% non-response).

Participants saw an average of 25 clients per week, with 58% of clients being repeat clients while 43% were referred clients (17% non-response). The most common source of referral was other CAM practitioners (62%) followed by allied health practitioners (29%). Less than a quarter (21%) of referrals came from OM doctors (12% non-response).

CAM practice

Two-thirds of participants (67%) became CAM practitioners because they developed a personal interest in CAM. Other reasons included wanting to help people (57%), and having witnessed or experienced the success of CAM (43%). Financial benefits (12%) and unhappiness with previous job (5%) were not ranked highly. See Table 2. Participants reported the ability to help people (88%) was the best reward they gained in practicing CAM, followed by personal/skill development (52%).

The most common source of CAM information were seminars/lectures/workshops (76%), followed by other CAM practitioners (60%) and the Internet (60%). Only 36% of participants used medical/scientific journals as a source for CAM information. Treatment outside participants' expertise (76%) was the most common reason for refusing or withdrawing treatment. This was followed by suspicion of a sexual motivation or actual sexual comments (64%), client displaying uncooperative behavior (62%), rude, abusive or obnoxious behavior (62%), and treatment causing danger to the client (60%). Poor record of payment or inability to pay (19%) was not a major reason. One participant provided the comment that treatment would be withheld to clients who were not open to CAM.

Communication and referral

Communication with other CAM practitioners (95%) was much higher than with OM practitioners (71%) (2% non-response). More communication with OM practitioners was preferred by most (79%) of the participants (2% non-response). However, two-thirds (67%) felt that OM practitioners were hesitant to initiate communication about clients' health issues with CAM practitioners and less than half (45%) felt that OM practitioners were open to discussing a client's treatment with CAM practitioners. The main reasons reported were OM practitioners' lack of CAM education (38%), OM practitioners' distrust in CAM therapies (33%), philosophical differences between CAM and OM (29%), lack of scientific evidence in CAM (29%) and lack of legal recognition in CAM (29%) (18% non-response). Referrals to (91%) and from (76%) other CAM practitioners were slightly higher compared to referrals to (86%) and from (74%) OM practitioners. See Table 3. Most participants wanted to collaborate with OM practitioners in clinical practice (83%) and education (76%). However, only 38% were interested in scientific research collaboration.

Attitudes towards health, CAM and OM

Participants reported the most common conditions clients came to see them were fatigue and lethargy (52%), musculoskeletal conditions (45%), chronic pain (41%), migraines and headaches (41%), and stress and anxiety (41%). More serious medical conditions such as arthritis (19%), cancer (19%), diabetes (10%), and heart disease (5%) were less frequently seen by the participants. Participants perceived that CAM was more suitable for disease prevention/wellness and for less serious medical conditions such as migraines/headaches fatigue/lethargy, sleep disorders, general stress/anxiety, dysmenorrhoea and premenstrual tension. More serious medical conditions such as cancer, heart disease, diabetes, and mental illness were perceived to have better outcomes if treated with OM. Infertility, asthma, and itchy rash were perceived to respond well to both CAM and OM.

Participants perceived physiotherapists, media and the general community to view CAM more favourably compared to the OM community (medical specialists, research scientists, pharmacists, and the Singapore Ministry of Health). The participants' mean total score for the modified CHBQ was 103.2 over a total of 140 (score of 70 = neutral).

Discussion

Our study shows that the typical profile of a CAM practitioner in Singapore is a middle-aged female who specialises in more than one CAM modality (71% female; mean age = 40.7, mean years-in-practice = 7.3). This profile is very similar to that of the typical CAM practitioner in the UK (63% female; mean age = 46.9, mean years-in-practice = 10.5),²⁰ the USA (66% female, mean age = 47.6, mean years-in-practice = 9),²¹ and Israel (61% female, mean age = 45.1, mean years-in-practice = 8).²² Future studies should include race as one of the dependent factors as Singapore is a multi-racial country.

The possession of a CAM degree and above by almost half (45%) of the participants demonstrates commitment towards their work because there is no requirement for a CAM degree to practice in Singapore. However, one participant reported that some CAM practitioners claimed to be able to treat many conditions after attending some weekend workshops. Thus, there could be a concern that some practitioners may not be adequately trained because the most common source of CAM information were seminars/lectures/workshops (76%).²³ Furthermore, 60% of participants obtained their CAM information from the Internet where information could be inaccurate or out-of date.

Professional CAM associations will have to monitor Continuing Professional Development (CPD) of CAM practitioners or the government may step in to regulate and ensure consistency in the quality of CAM training.²⁴

Participants practice all five categories of CAM as defined by NCCAM, similar to practitioners in the USA, UK, and Israel.²⁰⁻²² In our study, massage is the most common CAM modality practiced. However, if NCCAM's definition of manipulative and body-based practices is used to group massage, osteopathy, chiropractic, reflexology and related therapies under a broader category, this category will be the most common practiced group of

modalities in Singapore (67%) and Israel (60%). In Singapore, reasons that contributed to massage being the most common practiced modality could be the subsidisation of massage training by The Singapore Workforce Development Agency²⁵ and compulsory certification for massage therapists who want to work in a massage establishment¹⁶.

Homeopathy is practiced by only 10% of participants in our study even though it is one of the most-practiced modality (18%) in the UK.²¹ This could be due to the generally lower demand of Western-influenced CAM such as aromatherapy and homeopathy as found in local CAM consumer studies.³⁻⁷ Future studies could explore further the demands and challenges faced by individual CAM modalities.

We expect traditional medicines to be the most commonly practiced modalities due to their high prevalence found in local consumer studies.³⁻⁷ However, our study has very low response rates (2%-7%) from traditional medicine practitioners. Our study's overall low number of participants (n=42) and response rate (32%) could be due to participants' unfamiliarity with the internet-based data collection system and difficulty in understanding the English-language questionnaire. Although we expect most of our results to be different from local CAM consumer studies because the latter focused on CAM utilisation while our study focused on CAM provision, the low response rate and lack of participation from traditional medicine practitioners further added to the bias. It is strongly recommended that future studies targeting traditional medicine practitioners to include a hardcopy version of the questionnaire in the other main Singapore languages (Chinese, Malay and Tamil) to increase the response rate.

Participants practiced in a smaller group size but specialised in almost the same number of therapies (group size= 2-15 practitioners; mean therapies=2.6) compared to the UK (group size= 3 – 20 practitioners; mean therapies =2.4).²⁶ More participants (60%) are practicing full-time compared to the UK (33%).²⁶

Only 10% of participants chose CAM as their first profession. However, this is expected to increase with the increasing number of CAM-related courses being made available in post-secondary education by the Singapore Ministry of Education.²⁶

Most participants (69%) experienced a radical change in job types to become a CAM practitioner because they came from non-related skilled professions such as PMETs, secretarial and military personnel. Only around a quarter (26%) were formerly employed in caring professions such as nursing/allied health and teaching, similar to the UK (25%).²⁰ Participants' previous jobs suggested a slightly middle-class profile which could explain why financial benefit (12%) was not a major reason for becoming a CAM practitioner. In contrast, having developed a personal interest in CAM (67%) and the ability to help other people (88%) were the main reason and reward of becoming a CAM practitioner. However, the need for the participants (33%) and CAM practitioners in the UK (35%) to supplement their income with non-CAM related work could suggest difficulties in establishing a financially-dependable CAM practice.^{20,27,28}

The cost of initial consultation and treatment ranged from SG\$20 to SG\$345 is in line with what local cancer patients and consumers spent monthly on CAM.^{3-7, 10} The large range in the treatment cost could be due to different treatment duration and objectives of the various CAM

modalities offered by the participants. On average, participants treated more clients per week (25 clients) compared to UK practitioners (20 clients).²⁷

Despite the high prevalence of CAM, Singaporeans still prefer OM as their primary healthcare service because it is less costly.²⁹ The subsidised outpatient cost in a government hospital (from SG\$29)³⁰ is less than half the cost of an average CAM treatment (SG\$65). Nevertheless, the average percentage of repeat (59%) and referred (43%) clients reported by the participants suggest that CAM is effective and worth the money spent.³⁻⁷ The percentage of non-responses towards business-related questions were higher compared to other questions could be due to their sensitive nature.

Participants' reported that clients see them mostly for minor non life-threatening conditions rather than for serious medical conditions is in line with findings of local CAM consumer studies that CAM is used mostly for general health conditions and symptomatic relief.³⁻⁷ Participants' perception that CAM is more suitable for disease prevention rather than treatment of serious medical conditions could suggest their willingness to play a supporting role to rather than competing directly with OM.³¹

Massage therapists are required to obtain a license in order to practice from the Singapore Police Force rather than the Ministry of Health because massage therapy has been traditionally associated with prostitution in Singapore.¹⁶ That could explain why almost half (48%) of the participants who refused treatment due to suspicion of a sexual motivation were females who practiced massage. Participants reported that poor record of payment or inability to pay (19%) was not a major reason for refusing treatment. In the UK, this caring characteristic of CAM practitioners is further demonstrated through the practitioners' continuation to provide services on a complimentary basis, at a reduced rate, or through

barter trade when clients cannot afford to pay. The limitation to express such care towards others has been suggested to be a factor that compelled some individuals to make the radical career switch to become CAM practitioners.³²

Participants were interested in clinical practice and educational collaboration with OM practitioners. However, only 38% of participants were interested in scientific research collaboration. This could be due to participants' general lack of research skills and the belief that scientific methods of science may not be consistent with the holistic principles of CAM.³³⁻³⁴

Although some studies have found referral to OM practitioners to be one-sided,³⁵ our study found almost three-quarters of participants (74%) having received referrals from OM practitioners. This high referral could be due to the generally positive perception of CAM by local OM practitioners.⁸⁻¹¹ Despite this, most participants still felt CAM to be perceived unfavourably by OM practitioners and reported the latter's lack of CAM education (38%) and distrust towards CAM (33%) to be main reasons. Another reason could be due the generally strong endorsement to statements in the modified CHBQ (mean score =103 over 140). Future studies could explore in depth the reasons for such perceived prejudice and also include "Clients" as an option for the question on source of referral. On a positive note, our study found the majority (79%) of participants wanting more communication with OM practitioners. Hopefully, increased communication will reduce prejudice and increase collaboration between the two medicines.

Limitations

Although a non-validated instrument was used for this study, this is a limitation that most studies suffer from because of the lack of validated survey tools. Sampling was restricted to

CAM practitioners that were accessible only through the internet directory as most modalities do not have a register of members. The study was further limited by the small sample size of only 42 participants with very low participation from traditional medicine practitioners. The high non-response and possible misinterpretation of some questions must also be considered. Thus, the results of this study may not be representative of CAM practitioners in Singapore.

Conclusion

Being the first study on CAM practitioners in Singapore, our study purposely took a broad approach to explore the demographical and business profile of CAM practitioners and provide insights into their attitudes towards various aspects of health. The findings provide an important base-line data that will help future researchers explore further into CAM practitioners' business aspirations, and attitudes towards regulation and integration with OM.

Conflict of interest statement

No conflict of interest was reported.

Source of funding

No source of funding was required.

Acknowledgements

The author is grateful to all the CAM practitioners who answered the questionnaire in this study.

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