Editorial

Complementary and Alternative Medicine, and Traditional Chinese Medicine: Time for Critical Engagement

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Practice outside of mainstream or conventional medicine has always been an important part of public healthcare in some countries, particularly in the developing world. Recently the use of complementary-alternative medicine (CAM) has grown in popularity worldwide. Western studies showed that 42% of Americans, 52% of Australians, and between 20% and 65% of Europeans use some form of CAM.[1-5] However, the CAM community has long been struggling to agree on the definition of CAM.

A wordy definition of CAM is provided by the Cochrane Collaboration – "*A broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period*".[6] The authors wrote that "*CAM includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and well-being. Boundaries within CAM and between the CAM domain and that of the dominant system are not always sharp or fixed.*"[6] CAM practices may play one or more of the following roles: (1) contributing to a common whole; (2) satisfying a demand not met by conventional practices; (3) diversifying the conceptual framework of medicine; or (4) any combination thereof.

Development of CAM and Traditional Chinese Medicine in Singapore

The Singapore healthcare service is dominated by Western medicine. However, it is common practice among the various ethnic groups to consult traditional medicine practitioners for non-specific (general) ailments. Of particular interest is traditional Chinese medicine (TCM), which is especially popular in the Chinese community. In 1994, the Ministry of Health (MOH) estimated that about 45% of the population had ever consulted a TCM practitioner in the past, and that 12% of daily outpatient attendances are seen by TCM practitioners.[7] Seven years later, in a survey involving 500 respondents, 67% admitted to having received TCM and another 29% admitted to having received acupuncture.[8] A more recent survey of 399 households in a high-rise housing estate with a racial distribution closely matching that of Singapore as a whole, found that 76% (95% CI, 73.9 to 77.9) of respondents had used CAM over 12 months

CAM utilisation differs significantly between the ethnic communities. For example, the Chinese (84%) are the most frequent users, followed by the Malays (69%), and Indians (69%). Of all the CAM treatments, TCM (88%) was the most widely consumed, followed by traditional Malay (Jamu) medicine (8%) and traditional Indian (Ayuverdic) Medicine (3%).[9] A survey conducted in patients with Parkinson's disease in Singapore found that 61% of participants had used at least one type of CAM, of which the most common were traditional medicines, acupuncture, and vitamins or health supplements.[10] In this issue, Wong et al[11] also report a survey on the use of CAM by paediatric oncology patients.

The TCM Practitioners Act (TCMPA) was passed by the Singaporean Parliament in 2000.[12] The Act aims to reinforce the professional standards of TCM practitioners in Singapore, and to improve consumer's confidence in the service. Effective from 1 January 2004, those who wish to practise TCM, including acupuncture, in Singapore are required to register with the TCM Practitioners Board (TCMPB) and to possess valid practice certificates. Since 2000, acupuncture has been permitted in hospitals (Ang Mo Kio Community Hospital, National University Hospital, Singapore General Hospital, and Tan Tock Seng Hospital) on a clinical research basis only.

Last year, the MOH reviewed this requirement, and allowed acupuncture as well as a full range of TCM services (including Chinese herbal medicine and Tui Na (推拿) – Chinese therapeutic massage) to be offered as a treatment to complement Western medical treatment in hospitals and nursing homes. Since then, other hospitals and medical centres like Changi General Hospital, Alexandra Hospital, Raffles Hospital and Camden Medical Centre have provided acupuncture or TCM, or both, to their patients. Furthermore, a Graduate Diploma in Acupuncture Course has recently been offered to the local

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doctors. This is the first time that acupuncture has been taught in a systematic way to Western doctors in Singapore, in English.[13]

Most local TCM practitioners are diploma holders from 2 major local training institutions – the Singapore College of TCM and the Research Institute of Chinese Medicine. These institutions have recently upgraded their syllabuses to offer TCM bachelor degrees.[14] In a joint organisation with the Beijing University of Chinese Medicine, the Nanyang Technological University in Singapore also started a 5-year double degree course in TCM last year.[15] As a first, the Royal Melbourne Institute of Technology in Melbourne, Australia has run a similar double degree course with Nanjing University of Chinese Medicine since 1996. There are differences in the course content between Australia and China, due to different social and cultural contexts, healthcare systems, and resources for TCM education and training. We can learn from their experience.[16]

Although the knowledge and perceptions of CAM among local physicians is unknown, a recent survey of medical undergraduates from the National University of Singapore (NUS) showed that 86% of students welcomed the inclusion of CAM in the medical curriculum. They specifically wished to know more about TCM (including acupuncture) and herbal medicine. Many students recognise that they will encounter CAM in their future practice, and are open to discussion of CAM with their patients. Many also felt that CAM includes ideas that conventional medicine can benefit from.[17] The Department of Anaesthesia, NUS has been offering medical students an elective module in CAM with special emphasis on acupuncture since 1999.[18]

In view of the high level of TCM use in Singapore, it is timely that this issue of the *Annals* contains articles which explore the following issues:

Gap in Doctor-patient Communication

As the public's use of various healing practices outside conventional medicine increases, ignorance about CAM poses a communication gap between the public and the healthcare profession. Indeed, it was reported in 2 local population surveys that a high proportion (74% to 84%) of CAM users did not report or discuss their CAM use with their Western-trained doctors.[9,10] This result, which agrees with the 70% reported in a Western study,[19] is unsatisfactory.

Though it is widely perceived that "natural" products are safe, CAM use is not without risk. The co-use of prescription drugs and herbal medicines may cause both pharmacokinetic and pharmacodynamic drug-herb interactions.[20] For example, enzymes such as the cytochrome P450 complex are vulnerable to modulation by the many active constituents of herbs.[21] Concurrent treatment with *Angelica sinensis* (dang gui, 当归) and *Salvia miltiorrhiza* (danshen, 丹參) may increase the anticoagulant efficacy of warfarin, whereas *Hypericum perforatum* (St John's wort) and *Panax quinquefolius* (American ginseng, 西洋參) may decrease efficacy.[22,23] The adverse effects of herbal medications may be unrelated to the herb itself,[24] but may arise from manufacturing defects, e.g., misidentification,[25] contamination,[26] or adulteration.[27] Thus, a pre-requisite is the authentication of herbs. Zhao and Yuen[28] discussed the authentication of Chinese herbs, and proposed some ways to address these problems.

The Call for Evidence

Despite the high usage rates of TCM, the fundamental issues of efficacy, safety and cost-benefit are largely unresolved. We need more high quality randomised controlled trials (RCTs) to address these issues.[29] However, RCTs, the gold standard of evidence-based medicine, lend themselves less comfortably to TCM practice, particularly as the practice involves individualised and prolonged treatments. Another contentious issue is the use of placebo in TCM trials: what sort of placebo is appropriate for acupuncture?[30] Ernst[31] and Leung[32] have proposed some practical ways of conducting TCM research using the RCT strategy.

The widespread use of CAM by patients is also a mandate to the scientific community to improve our weak scientific understanding of CAM practices. Moreover, health professionals have a duty to their patients to harmonise the 2 approaches. The path begins with adopting a common standard of evidence.[33,34]

Medicolegal Implications

While more Western trained doctors are learning acupuncture or other forms of CAM, there is concern about the medicolegal implications for doctors practising TCM alongside Western medicine.[35,36] The Singapore Medical Council's Ethical Code and Guidelines stipulate that a doctor should only practice complementary medicine if he is adequately trained and registered by the proper authority to do so, and only where the law allows joint practice. The patient must give informed consent to treatment with CAM.[37]

The Code also states that a doctor may provide his patients with CAM through licensed and registered practitioners, but must be assured that this is in the patients' best interests. Also, unless the patient discharges herself or himself from the doctor's care, the doctor remains responsible for care. A recent high profile test case which involved the use of CAM by medical doctors will serve as a reminder to doctors who practice conventional medicine and CAM concurrently.[38]

Prospect for Integration

Integrated medicine (or integrative medicine as it is called in the United States) is defined as practising medicine to selectively incorporate the elements of CAM into a comprehensive treatment plan, alongside typical orthodox methods of diagnosis and treatment. Integrated medicine is not simply a synonym for CAM. It has a broader meaning and mission, its focus being on health and healing rather than disease and treatment.[39]

In a previous editorial on CAM in 2000, Lee[40] had outlined 5 essential steps which should guide its development in Singapore. These included introducing CAM education; professional training leading to accreditation and registration in CAM; improving communication between practitioners of both conventional medicine and CAM; specific funding for CAM research; and improving the quality control of CAM components.

The enactment of the TCMPA and the formation of the TCMPB will streamline issues of training, credentialling and registration. The desire of medical students to learn more about TCM, and a surge of interest among practising doctors to learn acupuncture, should increase education to satisfy the demand. Teaching about TCM should include broad reviews of the strengths and weaknesses of TCM, and assessments of their efficacy. There are wider educational opportunities beyond the simple "gaining of TCM knowledge". Familiarisation courses can produce a mature relationship between conventional physicians and CAM practitioners, explore the common ground between the professions, and benefit patients who wish to receive integrated care.[41]

These activities may lead to more doctors (together with TCM practitioners) carrying out TCM-related research. It is hoped that there will be specific funding from the National Medical Research Council for research into CAM and TCM. The Health Sciences Authority of Singapore has, over the years, gradually tightened the control of Chinese proprietary medicines to ensure that they are safe and of good quality.[42]

In conclusion, while there is some way to go before we can achieve properly integrated medicine. Ignoring CAM, in particular TCM, is not an option. Doctors should familiarise themselves with CAM, if only to understand their patients better and to guide them effectively in their healthcare choices.

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