

The Use of Complementary and Alternative Medicine in Australia

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Despite apparent high usage of complementary and alternative medicine (CAM) and increased CAM research in Australia, a national profile on CAM use was not available. In an effort to address this gap, an Australia-wide representative population survey on use of 17 forms of CAM was conducted between May and June 2005. This paper aims to provide an overview of the existing data on CAM use in Australia, present our approaches to improve methodological quality of such studies and draw implications from findings and their relevance to health policy, education and management.

Regional Studies

To date, there have been a number of regional studies that revealed the trend of CAM usage in South Australia (MacLennan et al. 1996, 2002, 2006). These studies suggested that approximately 50% of the South Australians were CAM users (52.1% in 2000 and 52.2% in 2004) and approximately one in four participants visited CAM practitioners in a 12-month period. Extrapolation of national use had resulted in an estimated expenditure in CAM of over A\$2 billion annually, comparable to the government expenditure for the Pharmaceutical Benefits Scheme.

Besides South Australia, there have been two other regional studies in New South Wales based on randomly selected households in 1995 and 1999 respectively (Kermode et al. 1998; Wilkinson et al. 2001). Kermode's study (1998), which investigated the usage of nutritional products consisted of 24 items of vitamins, supplements, herbal medicines, and homoeopathic medicine. This study showed that 64% of the survey participants were users of nutritional products with approximately one-quarter of them visiting relevant practitioners in a 12-month period. In contrast, Wilkinson et al. (2001) reported that over 70% of the public used at least one of the 14 forms of CAM therapies and close to two-thirds of them visited CAM practitioners. These findings were significantly higher than those of the South Australian studies.

These regional studies demonstrated an overall trend of high usage of some forms of CAM therapies. In comparison with studies from other developed countries, South Australians are more likely to use certain therapies such as aromatherapy, herbal medicines and other natural products. Specifically, the usage of aromatherapy in South Australia (MacLennan et al. 2002) was three times (15.3% vs. 5.6%) of that in the USA (Eisenberg et al. 1998). Within Australia, some CAM practitioners were more concentrated in the states of New South Wales, Victoria, and Queensland (Bensoussan et al. 2004). That is, regional differences of CAM practice do exist and an Australian population-based study on usage of a defined range of CAM therapies is required to provide a national profile on CAM utilisation and to explore related issues associated with CAM usage. These include the concurrent uses of Western medicine and CAM therapies, which is of interest to regulatory bodies, healthcare professions and communities as there are significant public safety implications.

A National Population-based Study

The Royal Melbourne Institute of Technology's (RMIT) Chinese Medicine Research Group, a World Health Organisation Collaborating Centre for Traditional Medicine in collaboration with the School of Public Health, La Trobe University initiated a national population-based study employing rigorous methodologies for sampling and data collection. After obtaining ethics approval, a sample of 1,067 interviewees from all states and territories in Australia was recruited through a random-digit telephone dialing (RDD) method. Participants were interviewed using a computer-assisted telephone interviews (CATI) system.

To ensure the representativeness of survey participants in a national level, the total targeted 1,067 interviews were initially allocated to six states and two territories proportionally based on the population data. Once the targeted numbers of interview for each region were met, no further phone calls for that region would be made. It is also important to mention that only one participant from each household whose birthday occurs next was selected to minimise

selection bias. Interviews were conducted in English and only with adults aged 18 years or older. Analyses on participants' demographic data confirmed that the study population was highly comparable to the Australian Census data—critical for the exploration of data concerning the current prevalence, costs, and rationale of using different forms of CAM.

In all, this survey includes the following six sections:

1. General health and the uses of conventional medical services
2. Prevalence and frequency of use, and expenditure on CAM
3. Rationale for CAM use and attitudes towards CAM regulation
4. CAM and health insurance coverage and reimbursement
5. Questions on four CAM therapies that are regulated at national or state level
6. Social demographic information on participants

Defining CAM

Currently, there is no internationally agreed CAM definition and classifications of CAM therapies/modalities, thus making meaningful comparison of the findings of different studies impossible. It is well recognised that one size does not fit all as different countries with different cultural background would have different patterns of CAM usage. Thus, the CAM definition and classification would need to be developed within individual cultural contexts. So, firstly, special attention was paid to developing a clear classification of CAM modalities that are relevant to the Australian context for use in the study.

A systematic review of the literature and consultations with experts in the field were conducted. There was the challenge of whether all CAM therapies should be included or to only list those most frequently used by Australians. Another issue considered was whether a more encompassing CAM definition referring to a broad range of CAM modalities or just a single statement should be used. Researchers felt that the definition developed by the United States' National Centre for Complementary and Alternative Medicine (NCCAM 2004a) could be used as a guide but was not adequate to provide meaningful details for the survey participants in Australia. As a result, researchers identified a total of 17 forms of CAM therapies. They are summarised according to the CAM classification of the NCCAM (2004b [Table 1]).

Table 1. NCCAM classifications of the 17 forms of CAM included in the study

NCCAM Classifications	17 CAM therapies
Alternative Medical Systems	1. Acupuncture 2. Homeopathy 3. Naturopathy
Mind-Body Interventions	4. Meditation 5. Yoga
Biologically-based Therapies	6. Aromatherapy 7. Chinese herbal medicine 8. Chinese medicine dietary medicine 9. Clinical nutrition including multivitamins and minerals 10. Western herbal medicine
Manipulative and Body-Based Methods	11. Chinese therapeutic massage 12. Chiropractic 13. Osteopathy 14. Reflexology 15. Western therapeutic massage
Energy Therapies	16. Energy healing (e.g. Reiki) 17. Qi Gong, martial arts and Tai Chi

In the survey questionnaire, the NCCAM categorisations were not mentioned, instead the 17 therapies were listed in random orders for each interview session. Our pilot study showed that the classification is comprehensible to the survey participants. To enhance the validity of individual CAM prevalence, respondents were first asked for their uses of a list of 17 CAM therapies and any other forms of CAM they had used in the last 12 months, followed by whether or not they had visited a CAM practitioner.

Implications

This study has produced critical data concerning the national use, expenditures and insurance covers for 17 forms of CAM therapies in Australia. It revealed a significantly higher proportion of Australian adults used at least one of the 17 forms of CAM therapies over a 12-month period than the recent South Australia study (MacLennan et al. 2006). This includes a substantial proportion of the public self-prescribed or self-administered CAM therapies and products.

This study also compared regional differences of CAM therapies usage. It appears that some states had a greater tendency of using some forms of CAM (such as homeopathy, Chinese medicine, etc). Given that chiropractic and osteopathy have been regulated throughout Australia, we noted the higher use of chiropractic and osteopathy across states and territories, and greater usage of acupuncture and Chinese herbal medicine in Victoria. It is interesting to speculate about the possible impact of regulation on the other 14 forms of CAM therapies that are currently unregulated nationally. However the frequency of practitioner visits and the use of some of the 14 forms of CAM were not lower than those that are regulated, suggesting these therapies are already well entrenched in the Australian community. Therefore, the potential risk from these therapies to the public may be higher than those which are regulated, as there is a lack of consistent standard of practice in place and inadequate research to support these forms of practices.

It is also worth noting that the costs—largely out-of-pocket expenses—for CAM products, practitioner visits and related items such as books, videos and course fees are substantially higher than what is available in the existing literature (MacLennan et al. 2006). In addition, the findings of this study also showed a high level of concurrent use of Western medicine and CAM therapies, as consumers negotiate parallel primary care systems on their own—this is a situation of grave concern from the perspective of public health and safety.

These findings have a number of implications:

1. The increasing popularity of CAM therapies offer alternative avenues to patients who have not been effectively managed by conventional medicine. However, there is no national policy that recognises the role of CAM in the health care system and as a result, these therapies were not managed in the same manner as western medicines with respect to quality, safety and efficacy. Consequently, patients who use these therapies may be exposed to additional risks due to the inadequate information available.
2. There is inadequate research that produces critical data concerning the quality, efficacy and safety of these CAM therapies. The current funding model of National Health and Medical Research Council does not provide a mechanism to support such research. The contribution by consumers to these therapies is substantial; thus, it should be the government's role to ensure research in CAM therapies is supported to guard public safety.
3. Inadequate practitioner regulation on the 17 common forms of CAM therapies have resulted in significant variations in CAM practice standards. This is of particular concern as a number of the therapies may possess significant risks such as inappropriate use of herbal products and lack of authentication of herbal medicines.

4. Inadequate communication between medical and CAM practitioners while the concurrent use of these therapies is increasing. The growing evidence of herb-drug interaction has revealed that such communication is essential and needs to be built into the good practice guidelines for practitioners in both Western and CAM fields.
5. Quality of CAM practitioner training needs to incorporate sufficient Western medical knowledge and clinical assessment skills to ensure timely identification of risks and proper referral is made. In addition, practitioner training should also incorporate recent research findings. Furthermore, compulsory continuing professional education is needed to ensure that practitioners are providing the best possible care to their patients by applying new research results into practice and to ensure public safety.

Comments

As the first attempt in Australia to gather critical nationwide data about CAM use, considerable efforts have been made to address major methodological concerns about such studies. Thus, a modified random-digit dialling and stratified sampling method, and computer-assisted telephone interview data collection procedure were adapted to ensure data validity and sample representativeness. A national profile of the CAM utilisation in Australia had been drawn from this population-based survey. The survey had also revealed some regional differences of CAM utilisation in Australia which have not been investigated previously.

Despite the limitations mentioned above, this study yielded important data concerning the pattern of use, expenses, concurrent use with Western medicine, and insurance covers of 17 forms of CAM therapies in Australia that have several implications in terms of health policy, research, education, practitioner regulation and compulsory professional education to ensure consumer safety. Governments both federal and state levels, must consider the appropriate actions that may address these issues to ensure public safety and quality of CAM services.

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