

# Integrative Medicine: Enhancing Quality in Primary Health Care

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## Abstract

**Objectives:** Integrative medicine (IM) is an emerging model of health care in Australia. However, little is known about the contribution that IM makes to the quality of health care. The aim of the research was to understand the contribution IM can make to the quality of primary care practices from the perspectives of consumers and providers of IM.

**Design:** This interpretive research used hermeneutic phenomenology to understand meanings and significance that patients and practitioners attach to their experiences of IM. Various qualitative research techniques were used: case studies; focus groups; and key informant interviews. Data sets were generated from interview transcripts and field notes. Data analysis consisted of repeatedly reading and examining the data sets for what they revealed about experiences of health care and health outcomes, and constantly comparing these to allow themes and patterns to emerge.

**Setting:** The setting for this research was Australian IM clinics where general medical practitioners and CAM practitioners were co-located.

**Results:** From the perspective of patients and practitioners, IM: (1) provided authentically patient-centered care; (2) filled gaps in treatment effectiveness, particularly for certain patient populations (those with complex, chronic health conditions, those seeking an alternative to pharmaceutical health care, and those seeking health promotion and illness prevention); and (3) enhanced the safety of primary health care (because IM retained a general medical practitioner as the primary contact practitioner and because IM used strategies to increase disclosure of treatments between practitioners).

**Conclusions:** According to patients and practitioners, IM enhanced the quality of primary health care through its provision of health care that was patient-centered, effective (particularly for chronic health conditions, non-pharmaceutical treatments, and health promotion) and safe.

## Introduction

ACCEPTED PRINCIPLES OF QUALITY IN HEALTH CARE include focusing all health care interactions on the patient, customizing treatment approaches to individual patient needs and values, and providing effective, safe and equitable health care.<sup>1–4</sup> Several quality performance frameworks, including the National Framework for Assessing Performance<sup>5</sup> in the United Kingdom and Healthcare Effectiveness Data and Information Set (HEDIS)<sup>6</sup> in the United States, have been developed in the past decade to measure structures, processes, and outcomes of health care. Campbell et al.<sup>7</sup> draw a distinction between quality of health care provided to individuals and that provided to populations. According to Campbell, indicators of quality, such as access and effectiveness, are most meaningful in the context of health care pro-

vision to individuals, whereas equity, efficiency, and cost are relevant in the provision of health care to populations. This article focuses on quality of health care provided to individuals in primary care settings.

The increasing use and prevalence of complementary and alternative medicine (CAM)<sup>8–10</sup> raise crucial questions in relation to health care quality, particularly in relation to the effectiveness and safety of CAM and the informed use of CAM approaches by non-CAM practitioners. Several books provide catalogues of integrative treatments for many health conditions,<sup>11–13</sup> but studies dealing with resultant health benefits or with issues of health service delivery are scarce.<sup>14–16</sup> Several contexts of integrative medicine (IM) exist in Australia, including co-location of CAM and mainstream medical practitioners in metropolitan practices and isolated examples in hospital settings and in remote and

rural communities.<sup>17–19</sup> The setting for the current research was IM practices in Sydney, New South Wales, Australia. This setting was chosen because more CAM practitioners practice in metropolitan NSW than any other region of Australia.<sup>20–22</sup> Other models of IM such as referral networks for CAM services<sup>23–26</sup> are beyond the scope of this research.

Health services research has provided much information on structures and processes of care that can improve outcomes for patients.<sup>27</sup> Increasingly, patient-based outcomes are being used to complement traditional metrics such as clinic audits and patient-satisfaction surveys. The aim of this research was to understand the contribution IM can make to the quality of primary health care through a deep understanding of lived experiences and perceptions of IM health care from the perspective of health care consumers and providers.

### Materials and Methods

This interpretive research used hermeneutic phenomenology (a research strategy that examines people's lived experiences of human phenomena, in this case, health care). This strategy was appropriate for the goal of understanding meanings that patients and practitioners attach to their experiences of IM. In hermeneutic phenomenology the emphasis is placed on interpretations that potentially provide deep layers of meaning.<sup>28</sup> Three data collection methods (cumulative case studies, focus groups, and key informant interviews) were used to explore processes and outcomes of IM through the interpretations of core stakeholders' experiences of IM. In particular, patients' and practitioners' perceptions were sought about their health care experiences, including assessment and treatment choices, health outcomes, congruence with beliefs and values, collaborative practices, and power sharing.

Data analysis was conducted concurrently with, and subsequent to, data collection, so that questioning and observation were progressively guided by the emerging data. The number of participants was not predetermined but rather evolved in response to the quality and extent of repetition of information collected. Over the period of data collection, a large and information-rich data set was collected. Redundancy of information became evident over the final few weeks of data collection, when previously identified ideas and themes continued to reemerge.

### Case studies

Cumulative case studies that combined data derived from several real-life contexts at different times were used to reflect the multiple perspectives available from a diversity of styles of co-located IM practice.<sup>29,30</sup> Three IM clinics in Sydney, Australia, were selected by maximum variation sampling, based on their profiles as reflected by mission statements, advertising material, and number and diversity of medical and CAM practitioners (Table 1). The daily operations of each clinic were observed for 10 days and semi-structured interviews were conducted with 22 patients, 5 general medical practitioners (general practitioners; GPs) who had CAM training, and 6 non-conventionally medically trained CAM practitioners. The written authority of the practice managers was obtained before participants were recruited. Flyers calling for participants and an information sheet were displayed in the clinic reception areas.

### Focus groups

Flyers inviting participants to join focus groups were displayed at four practitioner seminars (an IM seminar, a CAM seminar, and two mainstream medicine seminars), and at two IM clinics not previously involved in the research.

TABLE 1. DIAGNOSTIC AND TREATMENT APPROACHES AVAILABLE IN THREE IM CLINICS IN SYDNEY (CASE STUDY PHASE)

Clinic	General Medical Practitioners (GPs)	CAM practitioners
1	GP1: WM, acupuncture, nutritional medicine GP2: WM, acupuncture, herbal medicine, nutritional medicine, homeopathy GP3: WM, anthroposophical medicine, herbal medicine, nutritional medicine GP4: WM, homeopathy GP5: WM, herbal medicine, nutritional medicine	CAM1: Psychotherapy CAM2: Naturopathy CAM3: Naturopathy CAM4: Naturopathy CAM5: Naturopathy
2	GP1: WM, acupuncture, herbal medicine, nutritional medicine	CAM1: Naturopathy CAM2: Naturopathy CAM3: Naturopathy CAM4: Naturopathy CAM5: Reiki CAM6: Remedial massage
3	GP1: WM, nutritional medicine, counseling GP2: WM, nutritional medicine, environmental medicine, herbal medicine, acupuncture GP3: WM, environmental medicine, nutritional medicine, allergy testing GP4: WM, environmental medicine, naturopathy GP5: WM, nutritional medicine, environmental medicine GP6: WM, bioenergetic medicine, acupuncture, homeopathy, nutritional medicine, parasitology GP7: WM, homeopathy GP8: WM, environmental medicine, nutritional medicine	CAM1: Naturopathy CAM2: Traditional Chinese Medicine, Acupuncture, CAM3: Chiropractic CAM4: Chiropractic

IM, integrative medicine; GPs, general practitioners; CAM, complementary and alternative medicine; WM, Western medicine.

This recruitment strategy was designed to increase the variability of IM clinics (e.g., ratio of CAM practitioners to GPs and range of CAM modalities offered in the clinics) that participants had experienced. Four (4) patients, 5 GPs, and 10 CAM practitioners who were not previously involved in the research were recruited. All were either patients using IM or practitioners of IM. Flyers inviting participants to focus groups were also displayed in the reception areas of the IM clinics that were used to gather case studies. Six (6) focus groups were conducted to incorporate additional perspectives to those gained during the interviews and to test the credibility of emergent findings. Each focus group had between 5 and 10 participants and lasted from 1–2 hours.

### *Key informants*

Key informants were selected by purposive sampling based on their reputations as experts (indicated by relevant publications, conference presentations, public media profiles, and clinical experience in IM). Three (3) GPs and 3 CAM practitioners were recruited. Each participant was interviewed three times for up to 1.5 hours on each occasion. This series of interviews enabled interviewees to express personal perspectives and perceptions of integrative health care and allowed indepth discussions of the emerging findings of the research.

All interviews were audiotaped for transcription with the participants' permission. NVIVO software was used for data management. Data analysis consisted of repeatedly reexamining the data for what it revealed about experiences of health care and health outcomes. A key feature of the data analysis was constant comparison. Tesch<sup>31</sup> describes this as a process seeking "to discern conceptual similarities, to refine the discriminative power of the categories, and to discover patterns." First-order analysis of the data consisted of identifying key words and phrases used by participants. Next, associated ideas were abstracted from the first-order analysis to form second-order constructs. Repeated reading of the data enabled common concepts or higher-order themes to be identified. Emerging themes were refined, expanded, or discarded throughout the data analysis process. Ultimately, the findings from all phases of the research were fused to form metathemes. The quality of this research was ensured by authentic, credible, and transparent use of the methodology. Every stage of the research was conducted ethically and rigorously (e.g., exploring outliers and potential rival explanations, and the use of triangulation, including multiple data sources, multiple data analysts, and member checks).

## **Results**

From the perspective of patients and practitioners in this research, IM is a patient-centered, effective, and safe model of primary health care.

### *Patient-centered care*

IM practitioners in this research strove to implement patient-centered care. This was manifest in the value attributed to patients' knowledge and experience and in attempts to tailor practices to patients' values and preferences. As one interviewee noted:

It's very important that you meet a person in [that person's] value system... I encourage people to tell me what they think. (CAM practitioner 1)

Patient-centered care was also evident in the acknowledgment of diverse origins of ill health and multiple treatment approaches. Patients were viewed in the wide contexts of their family circumstances, communities, cultures, physical environments, and, sometimes, spiritual beliefs. One patient's first encounter with an IM GP exemplified this patient-centered approach:

[The doctor] said: "Tell me about your life." It wasn't just: "What's wrong with you?" (Patient 1)

The opportunity to discuss health issues and to ask questions was highly valued by patients and was facilitated by long consultation times. Decisions about health care were often made into a joint enterprise between patients and practitioners. Key features of IM were the wide range of diagnostic and treatment choices, including conventional biomedicine, CAM, and self-management options, how these interventions were combined and sequenced, and choice of practitioners. CAM diagnostic techniques were often used to identify subclinical indicators and diverse origins of disease processes. In the following interview excerpt, physical causes of dysfunction as well as life circumstances were considered relevant to the individual's health and were taken into account. The embodied condition that has traditionally been the focus in mainstream medicine was replaced by a focus on the whole person; as shown in this example:

I listen to [my patients] and then we discuss how they can approach their condition[s]. Take a really simple example. They've been to see another doctor who said: "Your blood pressure is up. You have to go on tablets," and a lot of people don't want to go onto medication. I'll say: "Have you had any investigation into where your hypertension is coming from?" We will do the work-up on hypertension, a conventional medical work-up. And occasionally you will get a surprise that there is something underneath it such as [a] kidney [condition] or some other problem that [a patient hasn't] actually been tested for. Then we look at the results. and we might start with diet or cholesterol, or we might start with some of the complementary support, stress management, maybe work with Hawthorn. I look at what else is going on in their lives. (GP 1)

### *Effective health care*

The findings of this research suggest that IM is particularly suited to certain patient populations: those with chronic or complex health conditions such as rheumatoid disease and chronic fatigue; those looking for alternatives to pharmaceutical management of their conditions; and those who are well and who are interested in maintaining and promoting their health. For these groups, neither mainstream medicine nor CAM alone had provided satisfactory health care. Changes in physical health assessments were supported by many strong testimonials to the effectiveness of IM. Patients reported improvements in physical conditions and feelings of well-being, as the following demonstrates:

I was sick for 2 years and went to numerous doctors, [and] had numerous blood tests to try to find the answer. The first doctor was an infectious diseases specialist who took vials of blood but couldn't find anything wrong. Then I came here, and, as soon as I started treatment, I started getting better. They ran tests and sent a urine test to America ... they showed very high levels of mercury and a number of other things. They gave me some medicine, double-checked the test results, and they indicated the same thing, and I started the treatment. It's been a relief because I was really, really sick. I was sleeping 15 hours a day on weekends. I'd go to work and give up. As soon as I had my first treatment—the first was one was great—as soon as I had the infusion I started feeling better. (Patient 2)

For GPs, IM opened up new ways of approaching health care. As one GP noted:

When I practiced in the conventional framework, there were too many occasions when I didn't know why a person responded the way [he or she] did or I didn't know why [the patient] didn't respond the way I expected. Since I've been learning nutritional medicine and looking at diets and supplementation, I've got a much better handle on why things go wrong. You may not be able to reverse things completely but you can always optimize the person's health with that more holistic perspective. (GP 2)

#### *Safe health care*

Participants reported that IM provided strategies for overcoming their concerns about the efficacy of CAM and the competence of CAM practitioners. Patients perceived that GPs' training provided them with the necessary skills to identify *legitimate* CAM practices from the available array. The very practice of CAM (or association with it) by GPs enhanced the credibility of CAM's efficacy. IM practitioners in this research stated that they practiced evidence-based medicine (EBM) in their clinics every day. These practitioners achieved this by accepting experience-based evidence as being equally legitimate as biomedical evidence.

In this research, the dominant model of IM positioned GPs as the gatekeepers and monitors of patients' health care. This arrangement was preferred by most patients and GPs and many CAM practitioners. It was also promoted by government subsidies. For example, pathology tests ordered by CAM practitioners did not qualify for an Australian government medical rebate, whereas the same tests ordered by medical practitioners did qualify. In this gatekeeper model of health care, concerns that are sometimes raised about the competence of CAM practitioners were allayed by patients' first contact being with a GP who exercised ultimate control over the provision of CAM. Perception of the high level of diagnostic skills of GPs determined the patient's choice of practitioner in the following case:

The thing that I really love about my doctor is that he uses a holistic approach. He uses homoeopathy. I go to him because he's got that medical background. Even though I have a natural therapies background myself, and know that they have a huge amount to offer, and

that, in a lot of cases, it's the natural therapies that actually make the difference over conventional medicine, I still think there's a lot in the (area of) diagnostic study that naturopaths don't get. I prefer to see the doctor. I think it's a safety thing. (Patient 3)

Many CAM practitioners also valued the Western medical diagnostic skills of GPs, as one practitioner put it:

[A]lthough I'm qualified in naturopathy I wouldn't profess to know as much as a half-baked doctor would know. The gap in knowledge I think is quite huge. How can you have the same diagnostic skills? (CAM practitioner 2)

IM also went some way toward overcoming safety concerns arising from patients' failure to disclose the full range of their treatment. It is common for individual practitioners not to be aware of treatment patients are receiving from other sources. In the IM clinics in this research, shared spaces, practice meetings, and informal conversations maximized communication among practitioners. Sharing patient files was a simple and effective way of monitoring and coordinating patients' treatment when they were consulting more than 1 practitioner in the clinic. Without such procedures, there could be no guarantee that practitioners would be fully cognizant of their patients' previous and even current treatment within the practice.

#### **Discussion**

Participants in this study perceived IM as promoting accepted criteria for quality in health care, namely that IM was patient-centered, effective and safe. Concerns about the efficacy of CAM and the competence and training of CAM practitioners have been major barriers to the integration of CAM and mainstream health care.<sup>32-34</sup> The findings of this study suggest that IM may reduce or overcome these concerns.

#### *Concerns about efficacy of CAM*

This research raises the issue of dissonance between increasing patient preference for CAM and its relatively limited base of biomedical evidence. The paucity of biomedical research has been attributed to the limited number of CAM researchers, lack of funding, and the unsuitability of empirico-analytical approaches to CAM therapies (e.g., difficulties measuring responses to energetic healing or identifying placebo controls in massage and touch therapies). Innovative research designs are required. For example, Jonas et al.,<sup>35</sup> proposed an integrated evaluation model for the study of whole-systems health care in cancer. In this model, observational data are collected and combined with selected information from sociologic, anthropologic, and behavioral research, and from cellular and molecular biology. Coulter<sup>36</sup> argued that health services research of the sort that characterizes the present study (e.g., participant observation studies, in-depth interviewing, and focus group studies) is the best available research paradigm for exploring perceptions of clinical effectiveness.

#### *Concerns about the competence of CAM practitioners*

Participants in this research often preferred to have GPs as the monitors and gatekeepers of patients' health care; this

was seen as a safety strategy for the use of CAM. There is no consistent understanding of what constitutes primary contact practitioner training in diagnostic skills for non-conventional medically trained practitioners either within the health care system or within CAM training institutions. A uniformly accepted standard is needed, one that applies equally to all non-conventional medical health care practitioners who practice primary contact medicine. Until the general public can be assured that all CAM practitioners have the diagnostic skills required for primary contact (which requires the ability to diagnose and prescribe treatment, including the ability to identify and refer patients for assessment of serious medical conditions) the gatekeeping role of GPs will be required in the interest of public safety.

The use of hermeneutic phenomenology in this research was intended to provide deep understanding of issues of significance to particular people in particular situations. The results may be used to inform individuals and groups in similar situations to the research settings. Maximum variation sampling was used to expand the transferability of the findings to similar contexts. To minimize the risk of bias, the current researchers acknowledged and reflected on their own preconceptions throughout the prolonged interaction with the original data. Triangulation (such as using multiple data sources and multiple data collection methods) encompassed a wide variety of perspectives and was sufficiently extensive to ensure that no major ideas or themes were omitted. The use of multiple data analysis reviewers and regular external and participant checks supported the credibility of the interpretations. Moreover, these results may generate topics for wider consideration and stimulate further research on the implementation and value of IM health care.

### Conclusions

According to patients and practitioners, IM enhanced the quality of primary health care through its provision of patient-centered, effective, and safe health care. For patients with chronic health conditions and for those wanting non-pharmaceutical treatments, IM filled treatment effectiveness gaps and provided strategies for health promotion and illness prevention. Concerns that are sometimes raised about safety in relation to the primary contact role of CAM practitioners were perceived as alleviated by the gatekeeping role of the GPs.

### Disclosure Statement

No competing financial conflicts exist.

### References

- Audet A-M, Davis K, Schoenbaum SC. Adoption of patient-centred care practices by physicians. *Arch Intern Med* 2006;66:754-759.
- Bezold C. The future of patient-centered care: Scenarios, visions, and audacious goals. *J Altern Complement Med* 2005;11(suppl1):S77-S84.
- Davis K, Schoenbaum SC, Audet A-M. A 2020 vision of patient-centred primary care. *J Gen Intern Med* 2004;20:953-957.
- Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*: National Academy of Sciences, 2001. Online document at: [www.nap.edu./books/0309072808/html/](http://www.nap.edu./books/0309072808/html/)
- National Health Service (NHS) Executive. *The New NHS Modern and Dependable: A National Framework for Assessing Performance*. Online document at: [www.open.gov.uk/doh/newnhs/consult.htm](http://www.open.gov.uk/doh/newnhs/consult.htm) Accessed December 29, 2009.
- National Committee for Quality Assurance. *What is HEDIS?* Online document at: [www.ncqa.org/tabid/187/Default.aspx](http://www.ncqa.org/tabid/187/Default.aspx) Accessed December 27, 2009.
- Campbell SM, Roland MO, Buetow SA. Defining quality of care. *Soc Sci Med* 2000;51:1611-1625.
- George J, Ioannides-Demos LL, Santamaria NM, et al. Use of complementary and alternative medicines by patients with chronic obstructive pulmonary disease. *Med J Aust* 2004;181:248-251.
- Coulter ID, Willis EM. The rise and rise of complementary and alternative medicine: A sociological perspective. *Med J Aust* 2004;180:587-589.
- MacLennan AH, Wilson DH, Taylor AW. The cost of CAM. *J Complement Med* 2003;2:43-48.
- Kligler B. *Integrative Medicine: Principles for Practice*. Berkshire: McGraw-Hill, 2004.
- Yuan C-S, Bieber EJ, eds. *Textbook of Complementary and Alternative Medicine*. New York: Parthenon Publishing Group, 2003.
- Peters D, Chaitow L, Harris G, Morrison S. *Integrating Complementary Therapies in Primary Care*. Edinburgh: Churchill Livingstone, 2002.
- Anderson R. A case study in integrative medicine: Alternative theories and the language of biomedicine. *J Altern Complement Med* 2000;5:165-173.
- Eisenberg D, Post D, Davis R, et al. Addition of choice of complementary therapies to usual care for acute low back pain: A randomised controlled trial. *Spine* 2007;5:151-158.
- Scherwitz L, Cantwell M, McHenry P, et al. A descriptive analysis of an integrative medicine clinic. *J Altern Complement Med* 2004;10:651-659.
- Caldicott P. Setting up an integrative medicine clinic. In: Cohen M, ed. *13th International Holistic Health Conference Integrative Medicine Perspectives*. Leura, New South Wales: Australasian Integrative Medicine Association Inc; 2007:79-82.
- Easthope G, Tranter B, Gill G. General practitioners' attitudes towards complementary therapies. *Soc Sci Med* 2000;51:1555-1561.
- SolarisCare Foundation. *SolarisCare Integrated Care for Cancer: History at a Glance*. Perth: SolarisCare Foundation, 2010. Online document at: <http://solariscare.org.au/home/history> Accessed August 24, 2010.
- Bensoussan A, Lewith GT. Complementary medicine research in Australia: A strategy for the future. *Med J Aust* 2004;181:331-333.
- Hale A. 2002 National survey of remedial therapists. *J Aust Trad Med Soc* 2002;119-124. vol 8?
- Hale A. 2002 Survey of ATMS: Acupuncturists, herbalists and naturopaths. *J Aust Trad Med Soc* 2002;8:143-149.
- Bensoussan A, Myers SP, Wu SM, O'Connor K. Naturopathic and Western herbal medicine practice in Australia: A workforce survey. *Complement Ther Med* 2004;12:17-27.
- Grace S, Vemulapad S, Reid A, Beirman R. CAM practitioners in New South Wales, Australia: A descriptive study. *Complement Ther Med* 2008;16:42-46.
- Hall K, Giles-Corti B. Complementary therapies and the general practitioner: A survey of Perth GPs. *Aust Fam Physician* 2000;29:602-606.

26. Pirotta M, Farish SJ, Kotsirilios V, Cohen M. Characteristics of Victorian general practitioners who practise complementary therapies. *Aust Fam Physician* 2002;31:1133–1138.
27. Rogers SO. Evaluation of the impact of health services research on quality of care. *Surgery* 2009;145:635–638.
28. van Manen M. *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*, 2nd ed. London: Althouse Press, 1997.
29. Yin RK. *Case Study Research: Design and Methods*, 3rd ed. Thousand Oaks, CA: Sage, 2003.
30. Burns RB. *Introduction to Research Methods*, 4th ed. Frenchs Forest: Longman, 2000.
31. Tesch R. *Qualitative Research: Analysis Types and Software Tools*. New York: Falmer, 1995.
32. Dwyer JM. Good medicine and bad medicine: Science to promote the convergence of “alternative” and orthodox medicine. *Med J Aust* 2004;180:647–648.
33. Giordano J, Garcia M, Boatwright D, Klein K. Complementary and alternative medicine in mainstream public health: A role for research in fostering integration. *J Altern Complement Med* 2003;9:441–445.
34. Expert Committee on Complementary Medicines in the Health System. *Complementary Medicines in the Australian Health System: Report to the Parliamentary Secretary to the Minister for Health and Ageing*. Online document at: [www.tga.gov.au/docs/html/cmreport1.htm](http://www.tga.gov.au/docs/html/cmreport1.htm) Accessed May 31, 2004.
35. Jonas W, Beckner W, Coulter I. Proposal for an integrated evaluation model for the study of whole systems health care in cancer. *Integr Cancer Ther* 2006;5:315–319.
36. Coulter I. The rocky road from efficacy to effectiveness: New research directions in CAM in the US. In: Adams J, ed. *Examining the Role of CAM in Health Care: Linking Researchers and Practitioners*. Brisbane: Network of Researchers in Public Health and Complementary and Alternative Medicine, 2009.

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