PHILOSOPHICAL AND PROFESSIONAL ISSUES IN CHINESE MEDICINE

Thesis submitted for the degree of Doctor of Philosophy

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Summary of changes made, based on reviewer recommendations:

Chapter 1. Include a brief paragraph justifying the focus on WM practitioners re exclusion of other allied health professions. Provide some linkage of study aims to the chosen methodologies.	Included in 1.1: "As the paramount example of a "medical profession" WM has therefore been chosen as the focus for exploration and comparison in this thesis. In future work it is intended to extend this analysis further to involve other allied and complementary healthcare practices." Included in 1.4: "The aims are supported by the methodologies chosen in that both quantitative surveys and qualitative in-depth interviews rely on the direct inclusion of participants in both the form and content of the descriptions of the phenomena in question."
Chapter 2 Consider the inclusion of literature concerning CM/ CAM in Australia. For example Wiese M, Oster C, Pincombe J. Understanding the emerging relationship between complementary medicine and mainstream health care: a review of the literature. An Interdisciplinary Journal of the Social Study of Health, Illness and Medicine, 2010;14:326-42. Baer H. The drive for legitimization in Australian Naturopathy: Success and Dilemmas. Social Science and Medicine. 2006;63: 1771-83.	References discussed in 2.1.3: "Despite increased use by patients and overall professionalization in some fields, issues in the integration of CAM in Australia include the lack of communication with WM and the danger of being integrated into the Western model (Wiese et al, 2010)." And, "While forms of CAM other than CM, such as osteopathy and chiropractic, have obtained some limited legitimation in the form of statutory regulation some others, such as naturopathy, are yet to be recognised by the regulatory system (Baer, 2006)."
Chapter 4 Inclusion of paragraph providing rationale for specific research question.	Included in Case Study section: "[1] For further discussion of the rationale and methods used to undertake this research please see Chapters 1, 5 and 6."
Chapter 5 Fuller reporting of methods re questions raised in body of the report.	Included in 5.1: "The questions taken from the previous workforce surveys were chosen for their descriptive qualities, to improve validity and to assess changes that might have occurred over the last two decades. The novel questions developed by the research team were designed to fill gaps in knowledge and to ascertain aspects of CM practitioners' attitudes and values that had not been included in the previous surveys."

	And: "Participants were members of the four professional associations or on the CMRBV registrant list, currently and primarily practising CM in Australia." And: "Other professional associations possibly representing CM practitioners contained small numbers of members only and did not respond to invitations to participate."
Chapter 6 For completeness address minor lack of details when reporting methods ,and strength justification of the theoretical framework used re methodology.	Included in 6.1: "The theoretical underpinnings of qualitative research methods, such as discursive dialogues, emphasise the uniqueness of the perspectives of individual participants, while allowing them to be represented in a manner consistent with the natural descriptions participants would employ themselves, and at the same time acknowledging the active influence of the researchers. These theoretical ideas, found in phenomenology in particular, closely parallel key conceptual constructs of CM." And: "Nine potential participants either declined to be interviewed, did not respond to the invitation to be interviewed, or were not interviewed because a convenient time could not be arranged." Included in 6.2: "The interviews took place over between 20 to 90 minutes, with an average interview taking 45 minutes."
Chapter 7 Include a summary of the strengths and weaknesses of the methods chosen, and discussion of education and research implications.	Included in 7.2: "In addition to adding to the appreciation of the development of more specialised postgraduate education options, the results here suggest that changes may be made to current tertiary educational models and in Australia, in order to reflect better both the current needs of CM practitioners and the nature of CM itself. This may also encompass more developed education in comparative analysis and alternative research models that include qualitative or mixed-methods design, as used in this thesis. As discussed in previous chapters, the quantitative and qualitative methods chosen for this investigation are limited by many factors. Quantitative studies are limited by schematic and partial representations of the populations under investigation. Qualitative investigations are subject to under certain or incomplete generalizability to the wider groups of people being explored. Despite these and many other limitations, the quantitative and qualitative methods

	were chosen here for their particular abilities to display key features of the primary CM practitioner workforce in Australia. Like CM itself, surveys and interviews are descriptive and allow the participants room to respond in ways that reflect their perspective and experiences. This study demonstrates the fecundity of this approach and suggests that mixed-methods research might be more used to investigate CM and other forms of medical practice.”

General Declaration

Monash University

Declaration for thesis based or partially based on conjointly published or unpublished work

In accordance with Monash University Doctorate Regulation 17.2 Doctor of Philosophy and Research Master's regulations the following declarations are made:

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes one original paper published in peer reviewed journals. The core theme of the thesis is philosophical and professional issues in Chinese medicine. The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the candidate, working within the Central Clinical School under the supervision of Professor Paul Komesaroff and Associate Professor Kylie O'Brien.

In the case of the above my contribution to the work involved the following:

Thesis chapter	Publication title	Publication status	Nature and extent of candidate's contribution
4	Quantitative and qualitative methods in CM: epistemological and ethical issues	Published	Writing 90%

I have renumbered sections of submitted or published papers in order to generate a consistent presentation within the thesis.

Signed: ……

Date: ……

Dedication

This work is dedicated to all of the Chinese Medicine practitioners in Australia, for whom this work is intended to serve.

I would also like to dedicate this to the Dalai Lama, whose blessing and message of tolerance and reconciliation have guided this project.

Acknowledgements

I am indebted to my supervisors Professor Paul Komesaroff and Associate Professor Kylie O'Brien, both of whom not only gave me the opportunity to do this work, but contributed immeasurably to it through their extensive expertise and insights. They supported and inspired me throughout.

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I would also like to send thanks to the librarians at the Alfred hospital library who were kind to me on the many occasions when I picked up books I had placed on hold, and who helped me find books when I frequently found myself unable to follow the Dewey System.

My family have given me the benefit of the doubt and believed in me and I thank them – my awe-inspiring father Mark, my mother Dr Valerie Aloa, who read my work and advised me all along the way, my wondrous sister Alyse and her Simon, my beautiful sister Crystal, my eternal brothers Brett and Adam, my darling sister in law Kerryn, my other lovely mother Pam and her Don, and Ian, the Stanford family father.

And to my husband Mark, for whom I could not have begun, carried out, or continued upon this journey, I express my deepest love and appreciation. Mark, you are my pillar of truth, my entry into eternity, the realisation of love made actual. Thank you.

Contents

Abbreviations

AACMA – Australian Acupuncture and Chinese Medicine Association
ABS – Australian Bureau of Statistics
AHPRA – Australian Health Practitioner Regulation Agency
ANTA – Australian Natural Therapists Association
ATMS – Australian Traditional Medicine Society
CAM – Complementary and alternative medicine
CHM – Chinese herbal medicine
CM – Chinese medicine
CMRBV – Chinese Medicine Registration Board of Victoria
CONSORT – Consolidated Standards of Reporting Trials
CPG – Clinical practice guideline
EBM – Evidence based medicine
EBMWG – Evidence Based Medicine Working Group
EBP – Evidence based practice
FCMA – Federation of Chinese Medicine and Acupuncture Societies of Australia
FSM – Friends of Science in Medicine
MDM – Medical decision making
NHMRC – National Health and Medical Research Council
NHS – National Health Service
NICE – National Institute for Health and Care Excellence
NICM – National Institute of Complementary Medicine
PCC – Patient centred care
RCC – Relationship centred care
RCT – Randomised controlled trial
TaSC – Towards a Safer Choice Report (1)
TCM – Traditional Chinese medicine
WM – Western medicine

Terminology note

Clients/patients – used interchangeably
Practitioners/clinicians/physicians/doctors – used interchangeably

Abstract

The overall aim of this project is to investigate the conceptual and empirical validity of Chinese medicine in Australia. To this end, the work is composed of three main lines of enquiry. In the first and conceptual component of this work, Chinese medicine (CM) and Western medicine (WM) will be characterised, and the possibility that they satisfy similar fundamental attributes under the conception of a health care profession is explored. The nature and use of evidence in both CM and WM is examined, with the finding that comparisons between the two – particularly in the areas of Evidence Based Medicine (EBM) research, 'the placebo effect', and the nature of clinical practice – reveal complex areas of increasingly emerging similarities that are worth further consideration. Areas such as the use and overlap between the domains of quantitative and qualitative methodologies in relation to this work are also discussed. In the interventions that make up the empirical part of this work, a nationwide survey (n =655) and semi-structured interviews (n = 29) attempt to characterise the current workforce nature and attitudes of Chinese medicine practitioners and key stakeholders in Australia. CM practitioners are found to be highly educated, coming from a diversity of backgrounds, and choosing to practise in a sole or multi-practitioner private practice setting. CM practitioners value and display a number of professional attributes, in particular their continuing professional development. They are found to acknowledge a variety of disparate and inter-related forms of evidence in their practice. CM practitioners and key stakeholders are also seen here to be working within and between multiple discourses and modes of thinking regarding the body and illness. They report valuing both CM classical evidence and evidence from EBM research. While they predominantly rely on and value CM theoretical and practical structures, at the same time they are engaged in complex states of conceptual and cultural negotiation between CM and the dominant form of healthcare in Australia, WM. These findings may have implications for how we view the practice of not only CM, but also other forms of healthcare and their evaluation. Finally, the discussion attempts to situate these results within the current Australian healthcare setting and build upon the above enquiries in order to highlight areas of attention that may further enable the development of CM as a mature and relevant healthcare profession in Australia.

Part One

Chapter 1: Introduction

When we look at medicine from our individual perspectives, we may see a collective striving towards an ideal that is surprisingly harmonious. While various evolving forms of thought are emphasised at different historical times, the underlying belief and human commitment to heal one another is inexorable. The aim of all forms of medicines is the preservation of life. This thesis is an interrogative look at the current nature of medicine through a particular lens. This perspective is a Western one – however the attempt is to focus particularly through the Chinese medical eye. What happens when we ask what the CM practitioner perspective is? What happens when we look at Western medical practice and literature, from a view that considers Chinese medical theory and practice also? What can we see? This thesis aims at inclusion and its underlying methodology attempts to allow for multiple perspectives. Medicine will be shown to be not a fixed phenomenon. Rather, as this work will demonstrate, medicine everywhere is interactive, changing, personal and relational. Western medicine (WM) and Chinese medicine (CM) ideologies and practices, are not only mutually exclusive, but mutually inclusive, mutually dependent and mutually generating. When we look to the other, difference still abounds, but so do many surprising similarities, and we may see our reflection. This thesis will demonstrate the strength in this comparison, and contribute to the way forward: hopefully in a mutually respectful and practical way for both systems of medicine.

1.1 Background & the research question

As argued by CM practitioner and academic, Volker Scheid, CM has been seeking a unified definition for some time:

> Most concepts by which Chinese medicine at present seeks to define itself – paradigm, system, science, progress – are terms taken from a modernist discourse that intrinsically supports biomedicine. If Chinese medicine wishes to escape from the stranglehold of this discourse, it can do so only by creating a new and autonomous discourse, a discourse that honours tradition and succeeds in taking Chinese medicine into the postmodern world.(2) p.26

Like WM, CM has a long, interesting history intertwined with complex cultural, political, and social contexts. This thesis aims to summarise the bases from which a medical profession may be defined, and investigate the question of how well the current conceptual framework and practice of CM in Australia satisfies these conditions. In particular, medical commentary and research will be reviewed in an examination of the foundations of WM and CM, and what makes a medicine and the evidence it uses and accepts, valid. Recent issues in Western

medical education, research, professionalism, and policy will be discussed with Chinese medical thought and practice in mind. In addition, the question of whether the Western medical profession and the practice of CM may both be couched within a shared framework of a view of health and disease, research and practice, patient and practitioner, that is embedded within and constituted by multiple, complex perspectives, will be elaborated and discussed in relation to the provision of health care and our understanding of professions. As the paramount example of a "medical profession" WM has therefore been chosen as the focus for exploration and comparison in this thesis. In future work it is intended to extend this analysis further to involve other allied and complementary healthcare practices.

In recent years, the practice of CM in Australia has grown significantly (3). The introduction of university based education, statutory regulation in the state of Victoria, coverage by private health funds, increasing consumer popularity of CM, and inclusion in the national healthcare regulatory framework in 2012, all provide evidence of the increasing professionalization of CM in Australia. With the advent of a national regulatory framework in Australia for the major health care professions, the inclusion of CM in 2012 was a significant event for the practice of CM in Australia. As a health care option, CM is growing in popularity and use (4). Inclusion in national regulation also reflects increasing communication with other health care professions in Australia. Improving our understanding of the nature and characteristics of the CM workforce via a national survey of practice and practitioner opinions in Australia will contribute to our knowledge and potentially improve the collaboration and dialogue with other streams of healthcare. Hopefully too, it will help contribute to the formation of a CM professional culture, through shared input from individual practitioners themselves.

From the national study, and the discussion of what characterises a valid profession, areas of focus regarding the further development of CM in Australia will be discussed. In particular, the issue of support for individual Chinese medical practitioners in the transition from education to practice, are explored. Recent research has suggested that more formal support, such as mentoring, is desired by final year students and new graduates of CM in Australia (5). Support for individual vulnerable and at-risk practitioners may be expected to strengthen a profession as a whole. Formal professional support in the transition to practice is argued by many to be a responsibility of the wider profession and is increasingly offered by other healthcare professions, including WM. As such, research from these other fields will inform this research, which includes an initial exploratory investigation into the value of formal professional support

through mentoring of new graduates. It is hoped that this discussion and subsequent recommendations will help better identify factors relevant to the successful transition and professional support of new graduates into CM practice in Australia, and contribute to the ongoing development of CM in Australia.

1.2 Setting the stage for this research

The development and rise to power of the Western medical profession has been well documented and discussed. The definition of what characterises a profession has been also been debated and commented upon by many. In recent years, with the historical political and cultural opening up of China, much more research and interest has turned to CM. In addition the use and practice of CM has expanded rapidly in the West. This has led to moves toward the 'professionalization' of CM outside of China, through university education, the establishment of professional standards and regulation, and inclusion in the dominant health insurance funding, research grants and policy structures. The attempt to integrate CM into Western healthcare systems and increasing acknowledgement of other forms of Complementary and Alternative Medicine (CAM) through education, research and practice by WM educators, researchers, practitioners is also currently occurring.

What makes a profession valid? What features allow a profession to obtain and maintain its identity and status? In recent years WM has emphasised a close relationship to science and the 'scientific method', imploring that this allows WM political, economic, and social privileges over other forms of healthcare. Critics have suggested that this professional power has come at a cost to patients and WM itself (6), and yet despite the relative cultural superiority of WM, the use and practice of other forms of medicine has been increasing (3, 4). 'Evidence based medicine' (EBM) has been proclaimed as the dominant intention and medical research in both Western and CM has been recently geared towards this ideal, methodologically problematic as it proving to be (7-9). The appeal to science, however, demands that the claimants uphold those standards on themselves before others.

To claim validity of practice, and by extension, professional status, through choice of evidence requires examination when we are considering the place of CM in the Australian health care system. Problems such as 'the placebo effect' and demonstration of clinical effectiveness, present challenges for both Western and CM, and their successful resolution is a significant issue in both fields (10-13). Some have suggested that CM is a separate paradigm, representing

a complete and distinct understanding of the body, health, and illness (14). Others have claimed that only evidence-based research methods will provide the validation needed for CM to be considered as a legitimate health care practice (15, 16). However, evidence emerging suggests that the clinical practice of WM is also far from the ideals of evidence-based medicine (17, 18), and that the public has been looking to possible alternatives. Attempts to design practice guidelines, education and research to address these issues highlight the complex and relational nature of health and healing (19-24). It is this increasing focus in the literature and research, emerging from within WM itself, that leads to the question of what really makes a professional framework a valid healing system and methodology. And, from this, can the current practice of CM in Australia satisfactorily fulfil these conditions? This is the basis of the questions that precipitated this research.

1.3 Why is this research question important?

Despite the emphasis on science and the application of the scientific method in medical care, ever increasing numbers of Australians, and people worldwide, are seeking out alternative forms of health care, including, CM (3, 16). It is becoming increasingly apparent in our society, where there appears to be increasing diversity of information and choices, that there is not one understanding or definition, determinant or predictor of health, but rather a multiplicity of approaches and treatment options. These provide phenomenological relief to individuals in as many ways as there are individuals. Further to this, there are a large number of Australians who are not only seeking out other forms of healing, but also choosing to practise alternative systems such as CM. Why is this? As will be seen in the results, these individuals are often well-educated, come from a diversity of backgrounds, and often view CM as a vocation – a personal calling that stems from an experience that strongly influenced their choice to study and then practise, despite the overall cultural norms and difficulties associated with practicing within the Australian health care setting. These Australians also report an interest in the philosophies and ideas underlying CM, a phenomenon that suggests the need for further investigation, with the possibility of contributing to our understanding of the human body, experiences of health and illness, and therefore, medicine. Finally, having been in the education system for thirty years, CM is now a registered health care profession, under the Australian Health Practitioner Regulation Agency (AHPRA), and its practice is legislated throughout Australia. With formalisation of CM practice via statutory regulation, it seems prudent to investigate the nature of this practice and its practitioners, in a manner that is mutually respectful and ethically appropriate to all those involved, respecting the perspectives and systems of thought in which they are working.

This research is important because with the advent of a national regulatory framework in Australia for the major health care professions, the inclusion of CM in 2012 was a significant event for the practice of CM in Australia. Improving our understanding of the nature and characteristics of the CM workforce via a national survey on practice, practitioner perceptions and workforce characteristics in Australia will contribute to our knowledge and potentially improve the collaboration and dialogue with other aspects of healthcare. It will help contribute to the formalisation of a CM professional culture, drawing on input from individual practitioners themselves.

1.4 Project aim and lines of enquiry

The overall aim of this project is to investigate the conceptual and empirical validity of CM in Australia. As such, this research project is an examination of the criteria that makes a health care profession valid in the current Australian health care context, and will attempt to investigate whether or not CM can satisfy these conditions. To the extent that there are deficiencies in these conditions, an attempt to establish the circumstances under which they may be improved upon by the CM community in Australia, from the findings of this research, will be explored and elaborated.

This work follows three main lines of enquiry:

- Conceptual foundation – the possibility that CM and WM satisfy similar fundamental attributes under the conception of a valid health care profession. They will be discussed and explored (chapters 1-4).
- Empirical interventions – A nationwide survey & semi-structured interviews will attempt to characterise the current workforce nature and attitudes of CM practitioners and key stakeholders in Australia (chapters 5-6).
- Implications for practice and professions –building on the above enquiries, practical and structural ideas and implications will be discussed that may address areas that will further support the growth of CM as a maturing and relevant health care profession in Australia (chapters 7-8).

In the *conceptual aspect* of this work, I am exploring the questions – 'What is CM?', 'What is WM?', 'What is valid evidence in medicine?', 'What makes a medical profession valid?', and 'What features allow a profession to obtain and maintain its identity and status?'. Conditions such as historical development, formal education, regulation, professional organisations, professional development, research methods, use of evidence, and professionalism, are

considered in the case of CM practice in Australia, with particular reference to WM as the mainstream health care profession in Australia.

The *empirical phase* extends this investigation to a nationwide survey of primary CM practitioners in Australia. The survey undertaken in this project is the largest to date to be carried out in Australia examining workforce characteristics and practitioner views. It incorporates questions from the 1996 *Toward a Safer Choice* workforce survey (1), as well as the CM Registration Board of Victoria (CMRBV) workforce data survey (25) carried out by the Victorian Department of Health. The use of these previous questions improves the validity of the survey, and will enable the results to be compared with the previous findings.

Participants were professional association members in CM & practitioners registered with the CMRBV, and were invited to participate via an invitation that was distributed via email and online. There was the option to complete the survey online or receive a paper copy, and the survey was offered in English or Chinese, in order to improve the representativeness of Australian CM practitioners. The survey contained eight sections, with both quantitative and qualitative items, that asked practitioners to describe or share their views on: demographics, clinical practice, education, evidence in CM, regulation, professional associations, professional development, and the future of CM in Australia. The project obtained ethics approval and the Australian Acupuncture and CM Association (AACMA), Australian Natural Therapy Association (ANTA), Australian Traditional Medicine Society (ATMS) and Federation of CM Associations (FCMA) all agreed to distribute the survey.

The qualitative part of the empirical component of this thesis is an interview schedule, with the aim of investigating the perspectives of CM key stakeholders and practitioners on their understanding of the nature of practice and current issues of significance in CM in Australia. Participants were both key stakeholders in the CM community invited by email, and CM practitioners who were invited to volunteer as part of the survey. The interviews were carried out in-person or by phone, and were semi-structured, audio-taped, and approximately thirty to sixty minutes in length.

From the survey and interview findings, and the discussion of what characterises a valid profession, areas of focus regarding the further development of CM in Australia will be discussed. In particular, the issue of support for individual Chinese medical practitioners in the transition from education to practice will be investigated. The aims are supported by the methodologies chosen in that both quantitative surveys and qualitative in-depth interviews

rely on the direct inclusion of participants in both the form and content of the descriptions of the phenomena in question.

1.5 Methodological reflections

1.5.1 Theoretical and conceptual framework

This thesis will begin with the idea that both WM and CM are more foundationally similar than they appear. Their respective medical epistemes and the clinical decision-making processes of both systems will be examined. The conceptual possibility that they may be interactive, adaptive, reflective systems of thought and practice will be further investigated. Through a review of recent research findings, it will be suggested that what is increasingly considered valid evidence in WM is actually reflective of Chinese medical methodology and practice, and issues relating to evidence-based medicine, research in medicine, application to practice, the concept of placebo, and the relationship of WM and CM with science will be discussed in detail.

From a philosophical perspective, the increasing awareness of the validity of the individual (for example, the patient, practitioner, research participant), the difficulties associated with the philosophical and practical question of the separation of parts within medicinal research, and its clinical application, as well as the primacy of patients and their relationships with practitioners as the basis of both WM and CM, will be explored in the context of previous and current research. I will argue from this that the increasing evidence through research into the clinical reality in WM (in particular the evaluation of patient and practitioner experience), the return to the patient through consent and ethics, the increasing recognition of multiple factors involved in clinical settings (for example, patient expectation, practitioner influence, interprofessional care, co-morbity, and 'the placebo effect'), all closely reflect long-standing principles and practices of CM.

This re-examination will set the foundation for an examination of the fundamental question of, 'What is a profession?', and a review of the historical similarities between the development of WM and CM. The current state of CM practice in Australia will be investigated and characterised through the *Chinese medicine as a profession* survey and interviews, and the question of whether CM may be demonstrated to be a valid healthcare profession in Australia will be examined. Issues arising from this, in particular the meaningful formation of an individual practitioner within a healthcare profession – through education, the transition to practice, the development of professional attributes, support from the profession and accountability through regulation – will be explored.

1.5.2 Analytical techniques and research design

Conceptual Foundation – This component will be undertaken through a methodological review and discussion of the medical literature and current research findings in the areas of medical epistemology, ethnography, the nature of evidence, evidence-based medicine, clinical practice, research methods, historical development, professionalization, education, regulation, professional support, and practitioner development, in both WM and CM. A number of theoretical approaches for reviewing and discussing the literature are possible and will be openly held in mind throughout the work – including phenomenology, hermeneutics, constructivist, and feminist and postmodern methodologies. However, this analysis will primarily centre around an interpretation and application of a number of general Western medical research findings and commentaries, from the conceptual framework of Chinese medical epistemology and practice. This non-dialectical re-evaluation of the Western medical literature may be considered possible when seen through the lens of someone who is western born and educated in Australia and the USA, and educated in CM in Australia and China. While the methodology largely derives from a Chinese medical interpretative framework, other Western critical analytical methods will be considered and employed throughout the conceptual interrogation.

Empirical Intervention – The aim of this part of the project is to characterise the current clinical dynamics and cultural structures of CM practice in Australia. Specifically, this will include exploring eight key outcomes: demographics, clinical practice; evidence; registration; education; professional development; professional associations; and the future of CM in Australia. By seeking out the views of individual CM practitioners and key stakeholders, it is hoped that this consultation will contribute to the development of CM in Australia at this time, consistent with the fundamental Chinese medical principles of 'inclusion' and 'holism'.

Implications for practice and professions - The final aim of this project is to contribute to the ongoing formation of CM as a valid healthcare profession in Australia. This will take place through a discussion of the arising conceptual and practical implications – for the practice and professionalization of CM in Australia.

1.6 Conclusion

This research, at this point in the development of CM in Australia, has the potential not only to describe and conceptualise the current practice and workforce of CM in Australia, but also to help in the formation of CM as an internally rigorous health care profession. Its findings will

contribute to our understanding of CM in the context of the introduction of the national regulatory scheme, by providing national data and representing the perspectives of practitioners and key stakeholders in CM.

Chapter 2: Background – Chinese medicine, Western medicine, and a conceptualisation of professions

This chapter will attempt to present conceptualisations of CM and WM, with reference to their respective histories and the concepts and features that underlie their practices, as we understand them. For the most part, the definitions presented in this chapter derive from expert narratives, whereas the research undertaken and described in the remainder of this thesis includes the perspectives of practitioners. This chapter will also offer an analysis of the characteristic features of a profession.

2.1 Chinese medicine

CM is a systematic episteme and related collection of practices that has existed for thousands of years. Its conceptual structure cannot be separated from its contextual social, cultural and political surrounds (26). Patterns of thought and related practices may be identified, though even these can defy complete specificity. However it is this knowledge in practice – necessarily local, holistic in approach, momentary in action – that may explain the longevity of CM. A description of the complete history of CM is far too great for this exposition, and the reader is referred to other works for a more complete account: for example, see (2, 27, 28). For the purposes of this thesis, what follows is a brief summary of the history and development of CM in China and Australia.

2.1.1 Chinese medicine in China: historical development

The roots of CM are enveloped in a long history and as mentioned a number of commentators have compiled worthy histories of its practices and schools of thought. It is thought that the earliest reference to a CM idea is found in the *Book of Changes*, or *Yi Jing*, from about 700BC, where the concepts of 'yin' and 'yang' were presented in a diagrammatic fashion (29). It was then during the Warring States period (476-221BC) and the Qin and Han Dynasties (221BC-24AD), where the unification of China as an empire first took place, that the theoretical system of CM is argued to be formed (30). In the century before this unification, inherent laws of nature were expounded by many philosophical authorities. Unschuld (27) argues that,

> ..the philosophers strove for the image of the right path or "way" (dao) of behaving that people had strayed from. To the philosophers, the Way would produce order – to Confucians, order in society; to Daoists, order in the universe. (p. 14).

The new concepts of order and systematic correspondences that were established to describe the human body reflected the governing structures presiding over the recently unified China. The formation of the theoretical system of CM and its fundamental School of Yin and Yang Theory are also thought to have developed when peasants observed the changing of light and dark on the sides of a mountain as the sun made its passage through the sky. Light and day was likened to Yang and darkness and night to Yin (29). Unschuld (27) argues that the belief in the inherent laws of nature independent of place, time and person at this time represent scientific ideals.

Publication of significant classical texts during these and subsequent periods include: the *Huang Di Nei Jing* or Inner Canon of the Yellow Emperor, which presented a systematic exposition of CM theoretical ideas and formed the basis for CM theory as we know it. Another important classic, Shen Nong's Classic of Herbalism, presented accumulated pharmaceutical knowledge and was the first CM pharmacopeia upon which subsequent collections were based. The Treatise of Cold Diseases and Miscellaneous Disorders by Zhang Zhongjing outlined the systematic method of evaluating signs and symptoms and differentiating syndromes and their treatment (30). In the Song era (960-1279AD) CM further developed as a complex system and established itself through education and the use of an internally consistent logic (27). Government support and the use of printing enabled the publication and distribution of CM systematic knowledge at this time (31).

In the following centuries since then it has been observed that times of rapid development and reorganisation of CM reflected the significant social changes that were occurring during those periods (26). A number of distinctive schools of thought emerged, and theories on prescriptions, diseases, the blood and vessels, qi, and the five elements were elaborated upon (30).Over time it has also been observed that these and a variety of other theories and practices of CM emerged out of historical contingencies, such as the development of cold theory by Zhang Zhong Jing, at a time when there were widespread febrile epidemics affecting the Chinese population (30). It has been proposed that these scholarly schools of thought were able to develop and exist over time in an environment that recognised a state of difference but at the same time sought out common ground and similarities (28).

In the 16th century WM arrived with the Christian missionaries from Europe, and the resulting exchange impacted on medical thinking in China. In the second half of the 18th century CM practice was argued to be obsolete by many practitioners who pushed for medicine to take a western form. In 1929 the government attempted to abolish traditional Chinese medicine in favour of WM and many practitioners were affected (31). This was a very difficult time for the culture and practice of CM, as it battled against powerful new ideological and social forces for the politicisation of WM in China.

2.1.2 Chinese medicine in China: current state

CM has long been tied to government policies in China. The CM we recognise today, termed 'Traditional Chinese Medicine' (with the acronym 'TCM') was compiled in the 1950s by the newly established People's Republic of China. Aligning itself with the cultural heart of China, CM was gradually incorporated into a number of state strategies and policies (2). This resulted in three strands of medicine: CM and WM were recognised as separate medical domains, and the area of integrative medicine came into existence (31). The focus of the latter was on the evaluation of CM using WM sciences, and the combined practice of CM and WM techniques. Educational and hospital facilities were built and CM theory was systematised and included in state textbooks and curricula (32).

The promotion and survival of CM has been strongly tied to the cultural identity of China. There are currently a large number of educational and medical institutions in China, many scientific research institutions and also a booming industry involved in the development and production of pharmaceutics and medical products in both CM and WM (30). For a number of reasons, there are many who are strong proponents of WM science and its superiority over CM. Unschuld (26) points to the decline of the beliefs in nature, ancestors and the supernatural, and the development of the role of systematic correspondences in health and disease in China, as pivotal to the development of Chinese medicine. He ties this to political change. The role of government and power can still be seen at play. Indeed Unschuld (26) argues, while a current decline in the everyday acceptance of systematic correspondences in China may be occurring, the politic of empirical and scientific medicine is taking its place.

In China, CM is now integrated into the national healthcare system in a number of ways. These include: the prescription of herbal formulas and single herbs to improve or treat side effects of WM interventions; the practice of CM as a stand-alone therapeutic system; and the integration of WM and CM (33). In CM hospitals, CM doctors are required to specify a Western medical

disease in addition to the more common 'pattern of disharmony' reflective of the integration of the two forms of medicine (34).

2.1.3 Chinese medicine in Australia: history, education & regulation

In Australia CM arrived with Chinese immigrants keen to participate in the gold rush of the 1800s (31). Since then, there has been an increasing demand for CM services (4, 35) with nearly one in five (19.3%), Australians reporting using at least one form of CM in a 2007 survey of Complementary and Alternative Medicine (CAM) use (4). There are also a growing number of people choosing to become CM practitioners (3). CM entered the tertiary education system in the early 1990's and is now offered in a number of universities around Australia with a comprehensive curriculum in both CM and WM theory and sciences (36). CM practice became regulated in the state of Victoria in the year 2000, which was the first state outside of China to introduce CM practitioner statutory regulation. This occurred after years of lobbying and the publication of the Towards a Safer Choice report, which was commissioned by the Department of Health (1). In 2007 the establishment of the National Institute of Complementary Medicines (NICM) followed from the recommendation in 2003 by the 'Expert Committee on Complementary Medicines in the Australian Health System' that the government has a social responsibility to invest in research on complementary medicines given the high use of complementary medicines and therapies in the community (37). In Australia, CM herbal medicine supplies are regulated by the Therapeutic Goods Administration in the interests of public health and safety (38).

In Australia and the West CM is often considered to fall under the blanket of CAM. CAM practices are a broad group of heterogeneous modalities that vary widely, and among other things may include CM, Ayurvedic medicine, reflexology, massage, Reiki, and crystal healing (39). Due to the wide array of practices grouped under the blanket of CAM, there are problems defining it, and the many challenges in researching and integrating the various practices that may be considered CAM are acknowledged (39, 40). Nonetheless, CAM is generally considered here to stay (40, 41). The use of CAM therapies is increasing in countries such as Australia (4), and the USA (42), where approximately 38% of Americans reported using some form of CAM in 2007 (43). Despite increased use by patients and overall professionalization in some fields, issues in the integration of CAM in Australia include the lack of communication with WM and the danger of being integrated into the Western model (44).

Chinese institutions and pharmaceutical companies provide numerous grants for studies in Australia, and there have been significant NHMRC financial grants towards research in CM in

Australia in more recent times (45). However these are still relatively minimal compared with the total amount of funding granted to WM projects, and there are only a couple of instances of CM being offered to patients in Australian hospitals, in a minimal capacity (45-47).

Many consider that further EBM research into CM will contribute to the legitimation and acceptance of CM in institutions and therefore potentially its integration into the Australian health care system (45). As well as more and better research, sufficient education and regulation of practitioners are also seen as necessary for the successful integration of CAM therapies, including CM, into mainstream practice (42). While forms of CAM other than CM, such as osteopathy and chiropractic, have obtained some limited legitimation in the form of statutory regulation some others, such as naturopathy, are yet to be recognised by the regulatory system (48).

2.1.4 Chinese medicine in other countries

The reasons for using and attitudes towards CM and CAMs in countries outside of China have been extensively investigated by many, for example (49-53) . Part of the reason the West may have embraced CM is that the latter suits recent cultural thought forms such as postmodernism (54). The trend towards systems thinking and constructivist thinking are reflected in the CM that has been projected to the West, and may perhaps highlight those worldviews for those who are seeking alternative understandings of life, health and the body.

In many countries, such as China, Korea, Taiwan and Vietnam, CM is integrated within the healthcare model (55, 56). CM is considered by many to be becoming increasingly globalised and integrated into existing healthcare systems, with hospitals, and general practitioner (GP) use and referrals becoming increasingly common in Europe, France, UK, and elsewhere (33). CM is offered at university in a number of countries, including China, USA, Germany and the UK. Recent lobbying by a lobby group of scientists, the Friends of Science in Medicine (FSM) group, has called however for CAM education, including CM, to be removed from universities in the UK (57). The Australian FSM has also called for universities to stop funding CAM education in Australia (58). However this has encountered trenchant criticism from others supporting tolerance towards conflicting viewpoints (59, 60).

More and more research is being undertaken worldwide in CM and CAMs. The National Centre for Complementary and Alternative Medicine (NCCAM) in the USA was established as a centre in 1998 under the National Institute for Health (NIH) in 2013. It has funded over $120 million in CAM research in 2013 and aims to define the usefulness and safety of CAM interventions

through scientific research and help inform the decision-making of the public, health care professionals and policymakers (61). As part of the National Health Service (NHS) in the United Kingdom the National Institute for Health and Care Excellence (NICE) incorporates research evidence on CAM's into its recommendations and clinical guidelines (62). There are concerns about lack of evidence for the use of CAMs and herbs, and the European Union's European Medicines Agency passed a Traditional Herbal Medicinal Products Directive in 2004 in an attempt to regulate the availability of herbal medicines in Europe (63).

The development of CM in relation to WM in Hong Kong has been discussed by Au (64), who explains that CM has a relatively established position there, with policy and planning initiatives, regulation, integrative wards in hospitals, research and education, and recognition by private health fund providers. According to Au, this remains incommensurate with Hong Kong WM doctors' lack of recognition of CM, and their continuing concern that scientific efficacy and safety based claims are missing. This suggests that while CM in Hong Kong can be argued as close to integrative with WM, the attitudes of WM doctors do not match with increasing patient use. Au concludes that the openness in Hong Kong must be extended to the interface between the doctor and the patient, whether in WM or CM, so that medical ethics may be realised through honesty and integrity, in what can and can't be treated. Based on patients' best interests, this will enable what does work to be incorporated into the healthcare system, and what doesn't to be acknowledged.

2.1.5 Chinese medicine: in concept

CM is characterised by a multiplicity of theories and practices that have often developed contemporaneously and in a mutual and/or competitive fashion. No one singular ideology entirely sums up the complexity and diversity of ideas and practice found within CM. Nonetheless, CM can be understood to encompass a set of ideas that consider the human body to co-exist with other phenomenon in and including its environment. Of note is the concept of 'holism', which is fundamental to CM thinking and is embodied in many of its theories, including Yin and Yang theory, Theory of Jing, Qi, Blood and Body Fluids, Five Phase (also called Five Element) Theory, and Zang Fu Theory. Holism may be understood also as 'integrity', where the body is viewed in a dynamic, relational state of unity with nature (30). As such, the body is considered an organic whole in itself, with the organs being interrelated in structure and function, but also interacting with and influenced by its external environment (30, 65).

CM theory is also characterised by the principles of syndrome differentiation (*Bian Zheng*) that guides the diagnosis and treatment of disease. Establishing a syndrome, or underlying pattern of disharmony, involves complex evaluation of multiple relational factors, including the signs and symptoms, location, and causes of the disease (30). The idea of prevention is an important precept also in CM, and this endeavour can be seen in many ways that are unique to CM. To seek out and treat the 'root' causes of diseases, to strengthen or 'tonify' the body's own internal system, to restore the body's natural balance between yin and yang, and treating in line with the patient's constitution and surrounding environmental conditions all reflect this concept in action within CM practice.

The *Huang Di Nei Jing* is the most famous ancient CM text that is composed of two compilations entitled *Su Wen* and *Ling Shu*(66). Historically similar to Hippocratic texts in WM, unlike in WM the *Huang Di Nei Jing* is still considered a guiding theoretical and practical resource by CM practitioners. The text takes the form of a dialogue between the mythical Yellow Emperor and Qi Bo, a famous physician. In it the theories of: Yin and Yang; Five Elements; anatomy and the systematic correspondences; blood and qi; the vessels; pathogenic agents; diseases; methods of examination; diagnosis; and interventions, in particular, acupuncture, are discussed. A systematic medicine is expounded in which Yin and Yang, qi and the five elements are understood as natural laws and not seen as constant or static but rather embodying dynamism and change. The processes observed in the natural world, such as the changing of the seasons or day turning into night, are observed on a micro-level in the human body, which exists interdependently with the world around it. Thus a person's age, diet, lifestyle, labours, and emotions, may influence their always flowing, internal balance. The environmental factors of wind, heat, cold, and damp, exist outside of the body and within it. In balance, we exist harmoniously with them. If these factors become out of balance, we find ourselves in state of disease.

CM theory is mainly based in the philosophies of Buddhism, Taoism and Confucianism. Buddhism, which came from India to China in 2BCE, conceptualises all phenomena in life as being interconnected (67). There are a number of different schools of Buddhist thought, with differing interpretations of the nature of reality and their respective practices. All, however, elaborate on the Buddha's ideas about the nature of life and the elimination of suffering through the realisation of the 'four noble truths' about suffering. Enlightenment, the cessation of suffering, may be attained through the practice of the 'eightfold path', which is the fourth noble truth. The eightfold path includes the interconnected states of right view, right intention,

right speech, right action, right livelihood, right effort, right mindfulness, and right concentration (67). Buddhist concepts of particular relevance to this work include, the 'Middle way', which emphasises balance and moderation in considering all aspects of living, and the concepts of impermanence and dependent origination. Both of these suggest that upon reflection upon the nature of life, we may realise that all things are in a state of constant flux and change, and arise in an interdependent state of cause and effect, respectively. These ideas had a significant influence on many areas of Chinese thinking, and we can see them expressed throughout CM.

Taoism is a philosophical and ethical worldview expounded by Lao Tsu in his famous text, the *Tao Te Ching* (68)in the 6th century. Developing out of the yin-yang school of thought, it describes the Tao, or 'way', as the ineffable, underlying form and creative force in and of all things. Taoism emphasises wu-wei, or action through non-action, simplicity and the natural state of life. This 'naturalness', expressed through non-action, is not easy to attain, but rather requires inward reflection and mental effort in order to go beyond that which appears, to the eternal Tao, or way of being (68).

Confucianism, developed by Confucius in the 5th century BCE, and Neo-Confucianism, developed over the last 800 years, created a systematic social philosophy which places value on family and the cultivation of the self towards a set of humanistic ideals which are argued to unify man, heaven and earth (67). Fundamental concepts of Confucianism include: the rectification of names, which involved not only establishing the social order or hierarchy but also the correspondence between names and phenomena; the Mean, or the importance of balance and moderation; the concept of *Jen*, meaning the perfect Confucian man, who exemplifies conscientiousness and altruism, helping other's character as well as his own; and Heaven, the way of which humans must attempt to attain through their moral conduct (67). Underlying the social and political structure of China for many centuries, Confucian values have therefore guided the thinking and practice of CM practitioners for centuries. As a result, CM has a strong ethical dimension inbuilt.

Yin and Yang

Yin and Yang theory explains all phenomena in life through the dialectical ideas of yin and yang. The dualistic concepts of yin and yang are more than just form or force – they are concepts that encompass identity, process and function and underlie all relationships, patterns, and change (69). They are defined in opposition to each other – mutually dependent and mutually generating – and are the foundation for all things:

> Yin and yang, they are
> The Way of heaven and earth,
> The fundamental principles [governing] the myriad beings,
> Father and mother to all change and transformations,
> The basis and beginning of generating and killing,
> The palace of spirit brilliance. (66)(p. 86)

From yin and yang an expansive system of correspondences may be observed:

> Heaven is yang, earth is yin.
> Spring is yang, fall yin.
> Summer is yang, winter yin.
> Daytime is yang, nighttime yin. (66) (p. 87)

These extend to the body, where areas, organs, vessels, physiologies, pathologies and diagnoses can be associated with either yin or yang. All things are identified and contextualised within the whole, as Kaptchuk (69) explains,

> .. Yin and Yang are not only a set of correspondences; they also represent a way of thinking. In this system of thought, all things are seen as parts of a whole. No entity can ever be isolated from its relationship to other entities; no thing can exist in and of itself. Fixed essences are abstractions; there are no absolutes. Yin and Yang must, necessarily, contain within themselves the possibility of opposition and change. (p. 8).

These dynamic, metaphysical ideas situate life and the knowledge of life as embedded within itself and its surrounds, creating an infinite, interconnected epistemological and ontological web that is constantly changing. Truth is never absolute or fixed or separate from life upon a transcendental plan. This is the foundation for CM thinking and practice.

Five Phase (Five Element) Correspondence Theory

The Five Phase (Five Element) Theory goes on to develop a correspondent worldview in which almost everything can be further categorised under the five elements, or phases – earth, water, wood, fire and metal. Associated primarily with the organs, these elements are described using a complex dynamic relationship theory that may be applied to the development, diagnosis, treatment and prevention of disease.

Some of the correspondences of the five elements and phenomena in nature and the body are set out in Table 2.1.

Table 2.1: Some of the five element correspondences (29)

	Wood	Fire	Earth	Metal	Water
Seasons	Spring	Summer	None	Autumn	Winter
Directions	East	South	Centre	West	North
Colours	Green	Red	Yellow	White	Black
Tastes	Sour	Bitter	Sweet	Pungent	Salty
Climates	Wind	Heat	Dampness	Dryness	Cold
Stages of development	Birth	Growth	Transformation	Harvest	Storage
Yin organs	Liver	Heart	Spleen	Lungs	Kidneys
Yang organs	Gallbladder	Small Intestine	Stomach	Large Intestine	Bladder
Sense organs	Eyes	Tongue	Mouth	Nose	Ear
Tissues	Sinews	Vessels	Muscles	Skin	Bones
Emotions	Anger	Joy	Pensiveness	Sadness	Fear
Sounds	Shouting	Laughing	Singing	Crying	Groaning

The correspondences form the basis for multi-dimensional diagnostic and treatment strategies in CM.

Qi

The body is fundamentally comprised of a number of important components in CM. Arguably of most importance is the fundament of Qi. There is no one word or phrase in English that is able to translate the meaning of Qi. As Kaptchuk (69) explains,

> One can say that, for the Chinese, everything in the universe, inorganic and organic, is composed of and defined by its Qi. Mountains, plants, and human emotions all have Qi. Qi is not so much a force added to lifeless matter but the state of being of any phenomena. For the Chinese, Qi is the pulsation of the cosmos itself. (p. 43)

Understood in part as a dynamic energy that is both becoming and being matter, Qi is considered to connect all things, forming structure and potentiating transformation. It underlies yin and yang, change, and all the resonances in the universe. There are a number of different types of Qi in CM, some of which include: Original or *Yuan* Qi, which is the Qi we inherit from our parents; Grain or *Gu* Qi, which comes from the food we eat; and Air or *Kong (Zhong)* or Chest Qi, which is the Qi that comes from the air when we breathe (69). Qi functions in the body include: to initiate and direct all the movements in the body; protect the body from evil pathogens; carry out the harmonious transformation of food; underlie the body's stability and retain its structure; and maintain the body's temperature through its warming function.

Blood

In CM, the understanding of Blood is somewhat different to the understanding in WM, and may be thought of as the counterpart to Qi in the body. Blood in CM is both the fluid and its function, carried through the vessels and the meridians nourishing, moistening and supporting the organs and parts of the body performing their respective functions. It is more material than Qi, and Kaptchuk (69) describes the differences between Blood and Qi as such:

> Qi activates, Blood relaxes. Qi quickens, Blood softens. Qi is tense and tight; Blood is smooth and languid. Qi embodies effort, Blood is effortlessness. Qi is becoming. Blood is being. Qi moves forward in time; Blood circulates in repetitive cycles. Qi is the potential; Blood is the actualised. Qi is creative and fosters newness; Blood is the already achieved and recognises what has already been created. Qi is visionary; Blood is memory. Qi is Yang, Blood is Yin. (p.52)

Blood is derived mainly from the *Gu* Qi and so may be considered a very dense form of Qi. It houses and anchors the mind, so that when Blood is deficient the mind may tend towards anxiety, restlessness, and insomnia. Qi generates, moves and holds the Blood, while Blood provides nourishment and a material foundation for Qi (29).

Jing, Jing Ye and Shen

There is also Essence, or *Jing* in CM, which is the most precious bodily substance. It is stored in the (CM) Kidneys, and comes from our parents as the individual constitution we acquire, and also from the food and fluids we drink. It is responsible for our growth, reproduction, sexual development, conception and pregnancy (29). As a refined and finite substance, Essence must be protected and preserved by maintaining balance and harmony in life.

The last of the vital substances in CM are the Body Fluids, or *Jing Ye*, which are the liquids and fluids and the most Yin substances of the body. The Body Fluids originate from food and drink, and as a component of Blood they nourish, moisten and lubricate all the areas of the body. If Blood becomes depleted over time, the Body Fluids may also decline. If Body Fluids become stuck and accumulate somewhere in the body, this may manifest as oedema, damp or phlegm conditions. *Shen* is translated as spirit, and in CM it is the important domain of life that defines humanity and transcends space and time.

Shen includes the conscious mind, and involves self-awareness, reflection, values, and life-purpose (69). The inclusion of *Shen* in CM relates various aspects of the spirit to organ features

and virtues which are not easily translated. It is important to note that the theorisation of *Shen* in CM differentiates it from WM, where there is less theoretical standing for concepts related to the spirit.

Meridian Theory

Meridians, or the *Jing-luo*, are "the channels or pathways that carry Qi and Blood through the body." (69)(p. 105). Distinguished from the blood vessels, they are an unseen network of organisation which connects all of the fundamental substances and organs. The meridians unify and maintain the balance of the body. Composed of twelve main meridians and eight extra meridians, the various levels and branches of the meridian system connect all of the interior parts of the body to the exterior (69). Disharmony and disease may be treated using the meridian system on the basis that affecting the exterior of the channel using acupuncture points influences the body's internal state. This understanding of the interconnectedness of all aspects of the body, and the surrounding environment, is an essential feature of CM theory and practice. The interrelated nature of existence is further reflected in the theories surrounding external pathogens of wind, heat, cold, damp and fire, in CM, which can affect the internal harmony of the body and produce respective disease states (See Appendix 7).

Zang Fu Theory

Finally, it is important to mention the Zang fu, or organ system, in CM theory. Composed of organs characterised as either yin and yang, this explanatory system underlies much of CM practice. The yin organs are the Heart, Liver, Lung, Kidney and Spleen, while the yang organs include the Small Intestine, Gall Bladder, Large Intestine, Bladder and Stomach. All of these interact in an interrelated, multi-system manner and disruptions within individual organs or these relationships can lead to disease. Treatment principles are designed to restore the function and flow to the organs and their interactions. Much more can be said about this and other theories in CM, however as mentioned in the beginning of the chapter, the reader is directed to other works for a more detailed exposition.

2.1.6 Chinese medicine: in practice

The practice of CM in China and Australia has been documented in detail by a number of key scholars in CM. The enquiry into CM and its practice over time has largely been undertaken using ethnographic methods by Western researchers, who have shed light on the set of practices and practitioners who participate in the field of CM in China and in the West (2, 70, 71).

These documented encounters with practitioners show us that the practice of CM is, like that of WM, not easily captured. Practitioners can be seen to be engaged in a number of simultaneous and complex discourses in and around the clinical setting (70, 71). The practice of CM, both in the micro-setting of the clinic and the wider stage, is characterised by a plurality of theoretical, institutional, social, and practical structures which are local and universal in nature and escape simplification (2). CM practitioners in Australia are found to be engaged in a high-level of personal reflection upon their practice and the concepts underlying it (71). This demonstrates the indivisible relationship between the CM episteme and its application in practice, whereby "In CM, theory and practice are seen as dialectically linked, rather than practice being the application of theory." (72)(p.27). It is this closeness and fluidity between concepts, the clinical moment and the practitioner's involvement that may underlie at the same time CM's power and potential decline (2). Scheid (2) argues there is the possibility that with increased standardisation and globalisation we will see a decline in the art of the practices that compose CM. And as we will see, CM practice and its theoretical evolution are intermingled, to the degree that attempts to separate them through objective research measures have so far proven difficult.

In the January 2010 issue of *The Lantern,* an oriental medical journal, , the editors argue that it is the non-descript 'fuzzy physiology' that is the strength of CM clinical practice and characterises a professional (73). They argue that it is the interconnectedness acknowledged within the Chinese medical world-view that makes CM powerful. They claim this opens up individualised, creative clinical thinking that avoids the "prescription-by-rote trap", and which they believe will be the downfall of the EBM ideal (73) (p.3). They recommend that practitioners not deny WM or its model, but rely on their own clinical reasoning skills and incorporate everything into their practice of the wider CM model, using each case to contribute to their own knowledge and experience.

Indeed, as is explored in later chapters, experience is often highly valued by CM practitioners in their clinical practice. Scheid (2) observes,

> Chinese physicians and their patients [..] both view personal experience, accumulated through years of study and clinical practice and by definition diverse, as a cornerstone of Chinese medicine. Doctors pride themselves on their individual styles of prescribing or needling. They define their identity by emphasising their place within a medical lineage, but also by demonstrating

> that they are engaged in reshaping Chinese medicine through the use of biomedical knowledge and technology. (p.9)

The simultaneous and non-contradictory interest in and appreciation for historical, present and future states of being reveal an underlying complex epistemology and ontology to CM practice, which we shall attempt to investigate further in this thesis.

2.2 Western medicine

This section offers a brief introduction to some of the key historical and current features of WM practice in order to allow a categorisation of some of the similarities and differences between CM and WM, and to provide the context for the ensuing discussion on what constitutes a profession and its development. A complete survey of the development, history, concepts and practices of WM is outside the scope of this thesis. The reader is referred to any of a number of other more comprehensive summaries on the historical development of WM (74-76).

2.2.1 Western medicine: historical development

Medicine in the Western world has ancient origins. Its practice has evolved, and is still constantly evolving, according to the participants involved within it. Traditionally and to this day medicine may be seen to be locally interpreted and practised. In the West, the roots of medicine may be found in early Greece, where Empedocles elaborated the idea that the individual embodied the laws of nature in the four humours. With the idea of democracy came changes to the social structure in Greece, where every man was an individual, which led to a scientific medicine that was "rigorously individualising" in its progress (27) (p. 73). The idea that human beings are fundamentally individual in their life experience and expressions strongly underlies the WM conception of the body and illness.

The idea of a self-healing body also emerged here, as the Greeks realised that illnesses can heal on their own. Politics and survival may be seen to influence the development of WM and CM (77). As Unschuld (27) argues, "The body as an organism has self-interest and tries to heal its own wounds and overcome difficult crises on its own: this idea is based on the model image of the self-regulating, autonomous polis." (p. 83). Unschuld (27) considers this in contrast to the state in China, where from a background of feuding states there was no trust in the ability of a self – societal or physical – to regulate itself. This lack of trust in the patient however, may be seen to pervade the WM practice and conceptualisation of effective medicine, where the doctor knows best and the patient's individual phenomenology may have been taken away to

the point that we are now seeing, as a reaction or consequence: a resurgence in the humanistic, qualitative, and ethical dimensions of healthcare - a metaphorical swing of the pendulum back in the other direction.

During Roman times, Asciepiades viewed illness as a stasis of atoms, but it was Galen who developed a consistent pharmacology based on theory and the observation of anatomy, physiological processes, and the effects of medicinal substances on the body (Ibid). Galen was another Greek physician whose contribution to the compilations of anatomical knowledge and surgical practices was immense, and many of his discoveries are still in use in medicine today. He performed a number of ground breaking experiments that changed the current ideas about the anatomy and physiology of the body, and published a great deal of works.

Through the application of knowledge from chemistry, physics and technology, and the ideas of reproducibility and repeatability, medicine distanced itself from religion in the 19th century. Application of the scientific method in medical observation and experimentation gradually influenced central concepts in WM and medicine and science became somewhat synonymous. The pathologist Virchow placed medicine under the laws of physics, and developed a biological theory of the body surprisingly reminiscent of CM ideas, when he described the body as a, "facility of a social kind, where a mass of individual beings depend on each other so that every element has a special task of its own, and each element, though it may get the impetus for its task from other parts, makes the actual achievement itself" (27) (p. 175). With Robert Koch, and his discovery of germ theory, the individual was further removed from the responsibility of their illness, as pathogens and their isolation or removal became plausible. The system became more important than the individual alone.

Despite the scientific breakthroughs associated with the historical development of medicine, the development of medicine as the dominant profession we now know today is argued to have its roots in the social setting of the early nineteenth century (75). Peterson (75) argues that at this time in England,

> Increasing secularisation, including a greater concern with physical health, human life, and productivity, provided a social environment in which knowledge of the human body, even in the absence of effective treatment, began to have significance, and in which medical men could make claims for the supreme importance of their work. (p.4)

Prior to their amalgamation in the 1858 Medical Act, physicians, surgeons and apothecaries were largely separate trades with their own corporate colleges or societies and licensing systems (75). Increasing competition and demand, as well as criticism of the powerful corporations at the time led to a decline in practitioners identifying with different corporations and more with their rank in the teaching hospitals and colleges that were becoming more established. This culminated with the passing of the Medical Act legislation in 1858 in the United Kingdom. These three groups united to oversee medical education requirements and the registration of qualified practitioners (75). Internal division still remained, but the establishment of a centralised medical education helped unify the disparate practices and promote the values and loyalties of the medical profession we may recognise today.

2.2. 2 Western medicine: in concept

Western medicine is a very extensive body of knowledge and set of practices that, like CM, have developed over a long period of time. Again, a full description is beyond the scope of this thesis. Early medicine included spiritual ideas and herbalism in many variations and forms (78). Ancient ideas about the four humours were only relatively recently removed from medical theory. The Greek physician Hippocrates is often considered the 'father of modern medicine' as a result of his elucidation of medical concepts that are still in use today, such as acute and chronic, exacerbation and relapse (79). The famous Hippocratic Oath expresses the commitment by the physician to practice medicine honestly, for the benefit of the patient, and to minimise harm. The Declaration of Geneva is based on the Hippocratic Oath and was put together by the World Medical Association in 1948 in order to reinstate medical values after the German holocaust and experimentation on humans.

Health and disease

The essential concepts of health and disease are still under question within the WM community (80). Attempts to define health and disease appear to stir up the ever-present, underlying epistemological tension between theoretical constructions and the practical reality of medicine (81). Despite the difficulty, Hofmann (82) argues that it is as easy to seek a definition of disease as to conclude that it is not possible to define a concept of disease. With the mainstreaming of EBM, disease names and definitions are constantly changing, and efforts are ongoing to refine and improve their classification using expert panels and strongly accepted evidence (83). The widely used World Health Organisation (WHO) definition of health is that, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." (84). The WHO definition of health attempts to recognise that health is not just the lack of disease, but a complex state of being involving many factors. But

as much as definitions and frameworks of disease and health have been offered, they also must be translatable into policy and practice, and this has been not easily realised (85). This is compounded by pressure from patients and doctors to classify symptoms into diseases or syndromes, as it is recognised that a diagnosis in many ways acknowledges a patients experience and that from a diagnosis a treatment may then follow (86). The development and classification of syndromes, collections of signs and symptoms into a functional diagnosis, in WM is increasing (86). We might note that these more and more closely reflect CM pattern syndromes and diagnostic models.

The clinician's gaze

Reviewing the historical development of medicine, Michel Foucault analysed the development of WM's attempt at objectivity and the 'clinician's gaze' (74). Foucault argued that the deliberate use of diagnostic observation and classification essentially separates the doctor and patient and the disease and nature, and that in acknowledging the disease in this way, allows the disease state to be fulfilled. This process neutralises the doctor, as a result of this endeavour to return the disease to a natural condition. Foucault (74) explains,

> The natural locus of disease is the natural locus of life – the family: gentle, spontaneous care, expressive of love and a common desire for a cure, assists nature in its struggle against the illness, and allows the illness to attain its own truth. The hospital doctor sees only distorted, altered diseases, a whole teratology of the pathological; (p.19)

The medical gaze is used to define and distinguish the medical condition, and in doing so, creates a separate discourse upon which the profession of medicine has created itself. Understanding the construction of knowing about the body, disease and healing in this way sheds light on some of the strengths and weaknesses of WM today.

With the establishment of medicine as a profession in the 19th century, and the development of hospitals where medical teaching and research took place, Foucault posits that the production and dissemination of medical knowledge took place over the patient's own suffering. In this way, the medical mapping of bodily structures, forms, and arrangements, was:

> [the] attempt to order a science on the exercise and decisions of the gaze [..] natural history took upon itself the task of mapping them, of transcribing them in discourse, of preserving, confronting, and combining them, in order to make it possible, on the one hand, to determine the vicinities and kinships of living

> beings (and therefore the unity of creation) and, on the other, to recognize rapidly any individual (and therefore his unique place in creation). (74) (p.108)

In the pursuit to acknowledge the individual's condition, the body becomes an object, and dislocates the practitioner and the patient, the disease and the natural state.

This artificial construction of objectifying truth in medicine as Foucault elaborates presents us with the realisation that this field of truth is self-perpetuating and potentially infinite. Furthermore, by attempting to disengage the disease from the patient, the medical discourse creates a separate domain in which,

> The sign no longer speaks the natural language of disease; it assumes shape and value only within the questions posed by medical investigation. There is nothing, therefore, to prevent it being solicited and almost fabricated by medical investigation. It is no longer that which is spontaneously stated by the disease itself; it is the meeting point of the gestures of research and the sick organism (74) (p. 199)

The process of objectification of disease found in the medical gaze paradoxically highlights instead the relational quality underlying medicine, and the inability of the observer to separate itself from the observed. The Platonic eternal, forms of truth sought are they themselves found to be constructed, social, discourses, created by the participants involved.

Cultural critics

Ivan Illich (6) argued that medicine has unwittingly betrayed itself and no longer reciprocates the faith that we offer it. Medicine, a now self-perpetuating industrial machine, has lost its way from its promise to relieve suffering, now creating more complications and patient dependence than it can control or contain. Control over the language of diagnosis, the use of physical measurements and statistics, "..prepared for a belief in the real existence of disease and their ontological autonomy from the perception of doctor and patient" (6)(p. 167). The intentional depersonalisation of the patient separates them from their experience of life and its suffering. This 'medicalisation of life' is exerted using the tool of diagnosis, which,

> .. always intensifies stress, defines incapacity, imposes inactivity, and focuses apprehension on non-recovery, on uncertainty, and on one's dependence upon future medical findings, all of which amounts to a loss of autonomy for self-definition. It also isolates a person in a special role, separates them from the normal and healthy, and requires submission to the authority of specialised

> personnel. [..] By equating statistical man with the biologically unique men, an insatiable demand for finite resources is created. (6) (p.104)

Illich (6) argued that the medical machine has wandered into a dehumanised, harmful religious state and shows that social and environmental factors are more contributory towards health, such as improvements in living conditions and hygiene. He states,

> Health is a task, and as such is not comparable to the physiological balance of beasts. Success in this personal task is in large part the result of the self-awareness, self-discipline, and inner resources by which each person regulates his own daily rhythm and actions, his diet and his sexual activity. Knowledge encompassing desirable activities, competent performance, the commitment to enhance health in others – these are all learned from the example of peers or elders. These personal activities are shaped and conditioned by the culture in which the individual grows up: patterns of work and leisure, of celebration and sleep, of production and preparation of food and drink, of family relation and politics. (6) (p. 274)

It is only when the individual is again returned to the experience of his or her suffering, and reinstates the right to life and responsibility, can we again find our way towards health, through the re-inclusion of the self and its care.

From a medical anthropological view, Csordas (87) argues that the perceived hegemony of medicine is based on the incorrect assumption that medicine dominates ideals of health and illness. Drawing on the work of others – including Singer, Kaufmann, Merleu-Ponty and Morsy – Csordas (87) highlights the cultural embedment of patients' reactions to medicine and medicine's ideological function, as well as the false assumption that medicine may be separated from the surrounding culture into its own domain. Critical analysis under this acknowledgement becomes more complex as we understand it; is also patients who participate in the promotion of medical practices and ideals from their individual and collective cultural and societal backgrounds. Csordas asks, "Is health an individual ideal, a corporate ideal, an ideal imposed on persons by medicine, or an ideal imposed on medicine by capitalism?" (87)(p. 420). The responsibility for maintaining and promoting health may require further reconsideration.

Evidence-Based Medicine

Evidence Based Medicine (EBM) has emerged as a popular movement in medicine in recent times. Developed by key figures in the relatively new field of epidemiology, it emphasises the use of large scale, randomised-controlled, intervention studies carried out on large cohorts of people, and their systematic reviews, as providing the highest levels of medical evidence. Sackett and colleagues in 1996 defined EBM as, "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients" (7). This definition has since been widely used in the literature and by organisations set up to promote EBM such as the Cochrane Collaboration and the Centre for Evidence-Based Medicine. There are however, meaningful problems with this definition and the implementation of EBM in research and its related Evidence-Based Practice (EBP). These will be discussed in more detail in the next chapter.

Integrative medicine is one relatively new area of WM that is attempting to explore alternative approaches that take into account psychological and spiritual aspects of health and disease and to include them within the western medical model. Understood as "practising medicine in a way that selectively incorporates elements of complementary and alternative medicine into comprehensive treatment plans alongside solidly orthodox methods of diagnosis and treatment", there are a number of ways this may be achieved (88). For example, training in CAM techniques such as acupuncture are being increasingly integrated into WM curricula and appear to contribute to medical students perceived preparedness in discussing these subjects with their future patients (89). While Integrative medicine is becoming increasingly accepted and practiced within the medical community, there are those who reject it in preference for the ideals of EBM (90).

In fact, Don Bates (91) argues that modern WM can be considered alternative in itself. Bates exposes what is known as 'modern', 'scientific', or 'biomedicine', as a historically isolated paradigm, characterised by the dominance of the germ theory model of disease and scientific medicine. When contextualised against what he defines as the classical paradigm of medicine, which includes the Hippocratic, Galenic and 'heroic' medical traditions, modern medicine looks relatively alternative in nature. Bates defines this according to notions of health, sickness, diagnosis, therapy, theory, and the doctor-patient relationship. He concludes by asking what may be learned from alternative medicines, and suggests that perhaps it is the elements which define modern medicine's very effectiveness that exclude the patient. However he is open to the realisation of a more sophisticated medicine that is based in science and complexity, or chaos.

2.2.3 Western medicine: in practice

The practice of medicine is as varied as the specialities and practitioners within them. Medical and allied practitioners can often be seen to be practising under a number of competing and disparate pressures arising from patient and community expectations, peers, supervisors, ongoing regulatory and professional requirements, and financial, social and institutional obligations (92, 93). The practice of medicine has arguably evolved from a historical emphasis on physician authority towards a more recent focus on the ideas of Evidence Based Practice. An evolution of the concept of EBM, EBP places the highest value on the practice of medicine using the evaluation of evidence from reviews of large scale population studies and its application in individual treatment decisions with patients.

Evidence-Based Practice

Whereas the recent alignment with scientific research in medicine has attempted to demystify the practice and modus operandi of medical care, it is largely realised that the pure application of reason in medical decision-making is unattainable. Indeed, this was one of the premises behind the argument for EBM, which intended to nonetheless rationalise practitioner decision-making. However, despite the increase in medical research findings, the uptake of EPB and its offshoot, Clinical Practice Guidelines (CPGs) by practitioners has not been fully realised (94). There are still large gaps in research areas and the effective translation of findings to quality and safety in health care (95). Concerns have been raised by physicians who feel that using CPGs improves EBP but that patient care and physician autonomy may be compromised (96). Not only do patient experiences and expectations influence doctors prescribing decisions, but doctors' opinions about their patients expectations even more strongly influence their prescribing (97). Interviews with GPs suggest that physicians are more likely to consider implementing new evidence and CPGs in their prescribing decisions in an atmosphere of etiquette and openness to clinical experimentation that allows for physician autonomy to remain incumbent in the medical sphere (98).

Medical Decision Making

An alternate approach to EBM that emerged about the same time is Medical Decision Making (MDM), which provides a competing explanatory model and tool for clinical problems to EBM. Like EBM, it was developed as a response to: increasing variations in clinical practice, the increasing range of therapeutic options available, the increase in patients and families taking part in shared decision making, and more recognition of the limitations to judgment and decisions in clinical practice (99). While both EBM and MDM share a similar foundation and intend to improve practitioners' ability to undertake clinical judgement, they fundamentally

value different approaches to medical practice. EBM places high emphasis on the nature and type of evidence used towards making a clinical decision, whereas MDM values the process of analysing a decision within the medical setting. Nonetheless, some argue that there is no such thing as a real shared decision between a doctor and a patient, because the expert knowledge and responsibility is more held by doctors than patients (100). EBM, MDM, and the use of CPGs have been argued rather to compose a set of 'heuristic' conceptual tools that may be used by doctors in guiding their clinical decisions (101). The realisation of the use of multiple theoretical structures by practitioners in order to guide them in their clinical practice may be seen to be similar to CM practice.

Other Clinical Models

Patient-Centred Care (PCC) and Relationship-Centred Care (RCC) are models of clinical practice that have been discussed in length in the medical literature. PCC emphasises the importance of the patient's point of view in the medical exchange, in offering information to the patient, and in shared-decision making between the patient and the practitioner (102). It makes explicit the importance of the patient-practitioner relationship in the medical context, and de-values other factors such as the hospital, the doctor, technology, and even the disease itself (102). A supportive practitioner-patient relationship has been found to influence healing and have a significant effect on beneficial outcomes in patients with Irritable Bowel Syndrome (103). RCC further highlights the link between the quality of the practitioner-patient relationship and a variety of outcomes and it may include consideration of clinician-colleague, clinician-community, and clinician's relationship to self (104). Safran and colleagues (104) argue that further attention to this domain of healthcare will provide significant improvements in quality of care, practitioners' quality of life, and work environments. These ideas are based in reflective and dynamic relationship theories that account for non-linear and changing experience, thereby representing a sophistication in the theoretical modelling of the provision of medicine (24). It has been suggested that these theories of 'centeredness' represent a move toward greater acknowledgment of the social, psychological, cultural and ethical aspects of medicine (105). The complex understanding of relationships as inherent to the practice of medicine is reminiscent of CM theory and practice.

The use of reflection upon clinical and professional matters as a regular feature of the practice of medicine has been recently promoted under the theory of reflective practice. Ongoing and continued reflection upon one's practice may be seen to benefit clinical reasoning and the integration of new information, the change and dissemination of which it is realised to be only increasing (106). Structured models of reflective practice have been developed and are argued

to contribute to the integration of the patient and practitioner experiences, values and morals into medical-decision making (106). Reflective practice has also been argued to accord closely with the nature of acupuncture practice, both of which emphasise the importance of context and the unique nature of individual situations (107). Personalised medicine is a popular model that has also been offered to balance out the apparent dehumanisation of the patient as an individual, and as an example, it has been argued that reinstating the 'cool intimacy' of practitioner touch and recognition is an essential element to encourage healing in the objectifying medical environment (108).

Patient and Practitioner Concerns

A number of parties, including general practitioners and patients, have been concerned about the short consultation lengths experienced by patients when they visit their GP, which average around fourteen minutes in Australia (109). A 2002 systematic review (110) found that doctors who consulted for longer were less likely to prescribe and were more likely to provide advice regarding prevention and lifestyle factors. Patients expressed greater satisfaction and it was concluded that important aspects of care were more likely to be included in longer consultations. Some doctors talk about their experiences and suggestions to deal with the challenge and stress of incorporating a multiplicity of factors within the clinical consultation while at the same time attempting to provide the best possible care (111, 112). A qualitative study suggests that doctors perform a feat of 'essentialising' information in clinical practice, whereby patient's stories about their illness are conceptually broken down and then complaints and symptoms are categorised into medical discourse (113). This complex mental operation is performed by doctors who can be seen to be actively simplifying and shaping the clinical problem into functional terms. Although this may be an accepted and inherent feature of clinical practice, it highlights the subjugation of other values by doctors in favour of the preferred value of providing beneficence to the patient (113). The recognition that all medical decisions are in fact based on a moral code is an important one, and as a result one may argue that the value placed on the features of a decision varies according to context and those involved. Indeed, this lack of recognition of value differences and the personal nature of the experience of illness has been an oft-repeated and discussed criticism of Western medicine.

Public confidence levels in medicine have been found to equate closely to confidence in science and education (114). While the public attitude towards medicine overall remains largely positive, at the same time there was found to be an increase in negative disillusionment and criticisms (114). The question of at what point public attitudes towards physicians should influence policy decisions, and therefore the wider professional standing of medicine, requires

further consideration. The threat of medicine's professional decline may be explained by a shift in control of resources and techniques, the increasing use of other medicines such as CM, the growth of allied health professions, and the recognition of the patient as a consumer (115). Despite this argued decline in power, medicine nonetheless remains the dominant medical profession by far. It is argued that this dominance may only be eroded when an equally accepted medical theory that offers an alternative worldview, with a requisite set of practitioners and institutions, emerges. And so far, Pescosolido (115) argues, none has.

Complexity in Clinical Practice

In recent times primary health care has been equated to a complex systems approach regarding patient management and care. With primary health care now including aspects of personal care, community development, health promotion and prevention, it is argued that recognising the nature of clinical practice as involving a complex adaptive field of systems in which clinical decisions are made may provide a framework that more closely acknowledges medical practice (116). General practice may be understood as "locally run complex systems interconnected with communities, bureaucracies and other practices", in which GP's "work with complex patterns of patient and disease knowledge, referral systems and multifaceted roles and responsibilities" (116) (p. 107). It is becoming increasingly acknowledged that medical service and the interpretation of evidence occurs in the domain of human relationships, which are fundamentally social, historical, cultural, and political, and that WM must develop working models that better reflect this reality. Again, we see the systematic theories of interconnectedness underlying CM closely represented.

Complementary and Alternative Medicines

Acupuncture and CM are being increasing discussed in WM (117, 118). In fields such as oncology it is becoming more acknowledged that patient use of CM and other CAMs is relatively high and that doctors must be open to discussing alternative treatments methodologically with their patients (119, 120). The increasing use of CAM has presented challenges for WM as it is being forced to re-evaluate for example, the evidence it values and uses to support policy decisions (121), and the areas of the practitioner-patient relationship and patient choice. Attempts to understand why patients choose CAMs and what differences there are between CAM users and non-users suggest that different criteria are used by patients to assess CAM and WM, and that negative judgements of CAM by non-users may affect their use in areas where CAMs are shown to be effective, such as symptom control around oncology treatments (119). A survey of physicians indicate they view the use of acupuncture for pain management positively but that the lack of insurance coverage and

facilities make it harder to refer patients (122). Medical students have been found to believe that 'CAM includes ideas and methods from which WM could benefit' (95% agreed) and were in favour of including training in CAMs (75%) so that they may be able to refer patients to CAM providers or provide CAMs themselves (123). Patients in Switzerland who chose a physician providing both conventional and CM were more likely to be completely satisfied with their treatment than those who chose a physician who only practices conventional medicine (124). Fewer side effects from CM, better quality interactions between the patient and doctor, longer treatment times, and different expectation of patients wanting CM, were provided by participants as explanations for this difference (124). Patient judgements around efficacy of CAMs may be the most important factor in deciding to use CAMs, and in one study of Australian CM patients and GPs it was found that patients considered CM to be better at preventing and treating the cause of disease, while conventional medicine was considered better in providing a quick diagnosis and treatment (125). The implications of these differences and the integration or otherwise of CM and other CAM modalities into WM are ongoing topics of discussion in the WM literature.

Ethics

In parallel relation to the emphasis on scientific ideals in medicine, the importance of human values in the practice of medicine is reflected in the relatively recent incorporation of the study of ethics into the curricula and ongoing education of medical practitioners, institutional establishment of codes of ethics, the requirement to meet ethical criteria in medical research, and increasing promotion of ethical reflection and enquiry on the part of practitioners. As Komesaroff (126) states, "There are many trajectories along which medicine intervenes in society: these include the deployment of scarce material resources, the transformation of the world of individual experience, and the generation of new knowledge. All these cases are replete with ethical effects" (p. 3). The practice and outcomes of medicine are the result of "its underlying conceptions and its internal modes of organisation" (126) (p. 3). "Ethics and medicine are intertwined", as the concepts of health and wellbeing, the medical discourse, the interaction between doctor and patient, and the subsequent integration of meaning for patients, demonstrates that, "issues of fact and issues of value cannot be clearly separated from each other" and that, "medicine and society are therefore interdependent." (126) (p. 3). This has been observed by many others (116, 127).

Komesaroff (126) suggests that medicine in the postmodern era cannot help but evaluate ethical issues, and that it must come to terms with "fluidity and fragmentation, plurality and proliferation." (p.16). As Giordano (127) states:

> ..medicine is intellectual, practical, therapeutic and moral, and therefore, any meaningful consideration of its practices must address the inherent moral questions, issues, and problems, and regard the numerous ethical systems and approaches that may viably provide the means toward potential resolutions.

The consideration of ethical aspects of medicine is now an essential to the practice of health care.

2.3 Professions

The rise of professions in the last century is one of multi-disciplinary interest. In the context of this thesis, the definition of a profession is particularly pertinent. As we examine and discuss the results presented in the following chapters, the key parameters of a profession and the child concept of professionalism, become important in the conceptualisation of CM practice and the comparison with other practices that define themselves as professional. Defined in contrast to the non-professions, professions are argued to hold a number of distinguishable attributes. These include – systematic theory, authority, community sanction, ethical codes, and an internal culture (128). These will be discussed further.

2.3.1 Definition of a profession

Seen in the sense of a continuum, the identification of a profession ranges from those that embody all agreed features of a profession, such as law, through those that vary in the degree to which they have these recognisable features, to those non-professions that may be considered unskilled, such as bricklayer or carpenter. Some occupations therefore will carry some of the features of a profession, such as education, and not others, such as the privilege of confidentiality.

The practice of a skill that is reliant upon a systematic body of theory underlies the idea of a profession. This important attribute requires preparation for entry into the profession, through investment of time, effort and money into a formalised education. This gives a neophyte the basis of the systematic classification of phenomena that direct and explain the day-to-day operational decisions and behaviour concerning a professions specific area of practice (128). This education includes formal familiarisation of a specific academic theory, as well as practical experience in a supervised setting. Reliance on a body of knowledge also allows expansion of this intellectual base through the research endeavour, and investigation of a theory through research lends further recognition of an occupation towards professional status.

As a result of the significant educational pre-requisite, and the conscious alliance with rationality, a professional is seen to be holding a level of authority that differentiates himself or herself from another person. The professional is seen to know what is better for a client than the client, by holding the skills to evaluate this within the specialised domain for which they are qualified, and therefore effectively holds a level of superior judgement in these cases, when compared to their client or someone else. Limited to the areas of knowledge for which the professional demonstrates authority, the practitioners' ongoing membership of their wider professional group is conditional upon not using this position to take advantage of the situation for their personal gain, such as engaging in a sexual relationship with a client (Ibid). For with this position in society, comes another feature of a profession, which is the sanction of the community within which the profession sits. It is essential to recognise that the power and privilege that is associated with the ownership of a set of specialised knowledge and practices, is received through community approval – realised concretely in the systems of accreditation and licensing. Not only must members of a profession persuade the community to institute their domain qualification, but they also must meet the ongoing requirements of this public regulation. Community approval is the basis for this recognition as a profession and as such provides an ongoing axis.

One of the ways professions attempt to promote the continuation of their public standing, which could be taken away if awareness of abuse or vested interests arises, is to have a code of ethics (128). By openly and primarily committing to the public welfare, community confidence in the profession is therefore facilitated. This is further promoted by the enactment of certain principles of professional conduct: universalism – or a professional commitment to provide a service to anyone who asks for it and to not withhold service based on personal preference or features such as gender, race, politics, religion, etc.; and disinteredness – a motivation that is less aligned with self-interest, and more aligned with the desire to perform excellently in all cases (129).

The role of competition within the frame of a profession is an interesting one, for the component of collegiality is an aspect of professions that ensures co-operation and the sharing of knowledge. Also, the disapproval of secret keeping for monetary gain maintains the integrity of the profession in the eyes of the public. It is important that professionals support each other, and rely upon the system of consultation and inter-and intra-profession referral, instead of competition and promotion measures (128). Those members not adhering to these requirements can receive discipline from their respective professional associations.

Professional associations are important sites in the acculturation of new members, and provide opportunities for interaction, continuing education, and appreciation of the collective values, norms and behaviours of the professional group. Examples of values that are shared by all the professions include that of providing service to the community, and the commitment to rationality (128). Another distinguishing characteristic of a professional is the concept of embarking on not just a job, but a career or 'life-calling'. This personal identification with one's occupation provides a level of engagement and altruistic responsibility that may not be seen in the non-professions.

Despite this seemingly clear description, provided by seminal authors on the topic, there has been a long ongoing debate about the particular features of what exactly makes up a profession. Four main attributes are argued to have surfaced: "(1) expert knowledge; (2) technical autonomy; (3) a normative orientation toward the service of others; and (4) high status, income, and other rewards" (130) (p.278). As discussed before, expert knowledge is the abstract scientific or moral propositions that are deliberately applied towards the solution of particular situations. Technical autonomy is the recognition of this knowledge, and the control of the application of this knowledge. Those outside the profession are considered not well-enough qualified to judge the suitability of the practice. This feature sets up dichotomies that are uneasily balanced in the wider inter-professional and public sphere, and will be talked about later in the thesis in discussions surrounding practice features, regulation and evidence. It is agreed that professions have a strong active intention, and ethical standards, towards the service of others (130). And finally, for various reasons, it is understood that professions experience a state of high social status, income and reward.

In recent times, alternative definitions of a profession have been proposed. These include a definition put forward by Thomas Brante (131), which defines professions as "(i) occupations that set out from scientifically based ontological models by which their objects can be constituted so that they are understood, explained and treatable, (ii) socially recognised, i.e. members of professional complex, which in turn is linked to "generalised cultural values"" (131) (p. 875). Arguing that the cognitive knowledge claims around which a profession practises are more stable than the social structures that they enact and interact with, Brante (131) suggests that professions must do more than just make scientific claims, but also explain them within the surrounding social contexts and mechanisms. From this understanding, for a profession to be defined as such it must successfully communicate and engage with the public that is desirous of, and ultimately grants, its service, and also privileges.

Timmermans (132) examines the concept of a profession with regard to the designation by Eliot Freidson of a profession as a 'market shelter'. This term attempts to describe the special place that professions maintain that is protected from market forces, competition, and influences of third parties and government. Out of the control of external forces, professions largely self-regulate, and control who enters and practises in the field. In medicine, Timmermans (132) argues that the movement of EBM was created out of a desire to maintain the market shelter that was perceived to be eroding. EBM was an effort to re-establish the public trust that afforded medicine its privileged status. This standardisation is described as such:

> EBM offers a dominant and sweeping social mechanism to control unruly individual professionals, regain the public's trust, and shore up the scientific quality of the professional medical project that has spread from physicians to other allied health professionals. ((132) p, 167)

As discussed, this has been criticised as de-valuing the skills of the professional and succumbing to external pressures. However, Timmermans (132) argues that exposure to external forces provides an opportunity for professions to strengthen themselves, through engaging with criticism. The problem of practice variation is argued to have been met by EBM's thesis of 'best available evidence', which has re-organised the evaluation of knowledge claims and "aims to standardise individual decision making based on population parameters" (132) (p. 172), through the implementation of clinical practice guidelines. By harnessing the respectability of the scientific model, EBM deems to restore trust in the profession of medicine and therefore ensure its professional autonomy and power.

The erosion of this perceived power however, is a real and present danger within professions who appeal to this position. To incite scientific values within professional practice implies endeavouring towards the use of objectivity, repeatability and external validation in action. However, it is easy to find authors who express concern with the subterrain alignment and reliance on industry for this evidence production and its implementation in practice. Not only is this an ethical issue, with the potential to devalue the fundamental principles of medicine, but it potentially limits the ability for a group to be defined as a profession, within the definitions so far discussed in the literature.

Stamatakis and colleagues (133) discuss the significant problem of pharmaceutical companies' influence over the generation of research questions, research funding, undergraduate and

practitioner education, clinical practice guidelines, uptake into practice, cost-effectiveness and risk analyses, and the direct effect on practitioner and patient choice. They argue that the relationship between industry and the medical profession requires urgent address in order to redefine the role of medicine as one without undue influence and conflicts of interests and that has the benefit of individual patients and society at heart. This can potentially call into question the status of medicine as a profession, for if there is doubt that it can reasonably satisfy the criteria of servicing the public interests first, it may no longer lay claim to the privileges and power that come with this position. If there is limited evidence within a profession, it is argued that health care professionals may be unable to provide satisfactory clinical judgement, according to EBM parameters (134). Likewise, if a practitioner is not up to date with the current evidence, or is unskilled in interpreting the evidence, this can leave a professional more open to the influence of industry that encourages use of their products and treatments.

2.3.2 Regulation

Historically, the amalgamation of a variety of practitioner groups through the Medical Act of 1858 led to licensing and registration of practitioners. This therefore led to a profession of medicine, which was enabled this status through the public agreement that it be more concerned with the social good than the commercial interests perceived to be the motivator behind the previously disparate practitioner groups. As a result, regulation of healthcare by the government is often now considered a key part in the legitimation of a profession, and demonstrated evidence on safety and efficacy is often argued as important in the regulation of medicines. Iyioha (135) examines this intersection between scientific validation and statutory regulation, arguing that the validation of CAM therapies may not always be amenable to the scientific method of EBM and its RCTs, which are used by Western and other medicines to legitimise their practice. As with other commentators (41, 136), Iyioha (135) questions the ability to evaluate all CAM therapies only according to the EBM evidentiary standards, and argues for a statutory model that accepts other forms of evidence (such as anthropological research) that may better validate and encompass the pluralistic nature and practice of CAM. Iyioha argues that the need to balance the safety of the public with the acceptance of the individuals healthcare decisions is the primary goal of statutory legitimation, not the devaluation of forms of medicine that are non-scientific.

Wilmot argues for the inclusion of a wider range of forms of evidence in the deliberative allocation of health care funding (137). Wilmot argues that the National Institute for Health

and Clinical Excellence (NICE), the public body which advises on medical resource allocation in the United Kingdom, has failed to make transparent the debate and reasoning behind its decisions, and as a result its public legitimacy has been brought into question. Primarily attempting to use the scientific, positivist paradigm as the basis for its decisions, the NICE nonetheless also carries the inevitable task of making value and ethical judgements in its function of 'distributive justice'. The reliance on scientific justification in the arena of medical legitimation is well documented, and yet as we have seen epistemological considerations have evolved from positivism to a more complex understanding of knowledge about the world, reflected in dialectic and constructivist methodologies and the validation of qualitative research. Wilmot (137) argues,

> the use of a wider epistemological base by NICE would particularly enhance output-orientated legitimacy, in that the perceived rationality and justice of its decisions would be enhanced by the perception the NICE was able and willing to process a wide range of different kinds of evidence, including qualitative evidence.

Wilmot (137) discusses perspectives that could also be considered by the NICE, and suggests a framework and processes that may be used to more inclusively represent the wide variety of epistemological and ethical perspectives, of contemporary health care consumers and providers.

2.3.3 Education

One of the delimiters and challenges for qualification as a profession is the formal exposition of a complex knowledge base into practice. Historically the entry and use of education to determine membership into a profession has influenced the shape and nature of medicine in particular (75). Once entry is obtained, education in the specialised area that makes up respective professions is used to indoctrinate the student into the body of knowledge and assumptions underlying that profession. The use of higher education to form those chosen into a profession, and the requirement of continuing education in one's practice field represent significant points of influence in the formation and development of professional and practice behaviours of participants within a specific domain. The exploration of this nexus may be seen to form a key focus of this thesis, both theoretically and within the research questions.

The development of a neophyte into a fully-fledged, 'independent' practitioner is found to be an evolving and complex process. Education plays a fundamental role in this development

towards entry and participation within a profession. Not only must students incorporate the body of work that represents the systematic theory underlying the profession, but they must also take on a set of habits, behaviours, social and cultural nuances that are carried out within their professional field (128). There are many ways in which it can be seen that this sophisticated professional development takes place within an individual and their wider field of learning and praxis (138). This also highlights the importance of pedagogy in the systematisation of knowledge within a profession.

2.3.4 Professionalism

From the definition of a profession follows the concept of professionalism. The discussion around professionalism emerged markedly after criticism in the 1970's that medicine was succumbing to a variety of external pressures, such as increased corporatisation and technologies. The promotion of professionalism and its self-regulation may therefore be seen as an attempt to reassert the ethical values of medicine in response to these criticisms Komesaroff (139). However, it is argued that the concept and display of professionalism itself must be understood as a complex process that requires open and reflective dialogue, in order that mindfulness remains about the socio-cultural contract upon which the practice of medicine is based (139). A definition of professionalism in medicine has not been as easy to come by however, and there has been debate over the key features of a professional and how we may argue for the necessity of professionalism in medicine (140). Understanding the role of professionalism may be the way we are able to maintain practitioner autonomy, balance out the diminishing effect of the recent emphasis on technical and scientific methods on practitioner decision making and patient trust, and appreciate the complexity of the clinical context. It has been argued that defining medical practitioners as professionals and promoting moral and intellectual standards in physicians through education is necessary to obtain the integrity of medicine as a healing service in the eyes of the public (141). Medicine's obligation to its patients and the recognition of the trust gifted to it by the public must always be in the minds of practitioners, and this may be more enabled through the promotion of professionalism as a set of ideal behaviours to aspire to (141).

Swick (142) put forward a normative definition of medical professionalism that contained nine key behaviours or attributes that may be considered to characterise the medical professional, and these have been referred to widely since. According to Swick (142), medical professionalism must be grounded in the variety of acts and contexts that comprise medical practice. As such, professionalism may be seen to embody these key features:

- physicians subordinate their own interests to the interests of others;
- physicians adhere to high ethical and moral standards;
- physicians respond to societal needs, and their behaviours reflect a social contract with the communities served;
- physicians evince core humanistic values, including honesty and integrity, caring and compassion, altruism and empathy, respect for others, and trustworthiness;
- physicians exercise accountability for themselves and for their colleagues;
- physicians demonstrate a continuing commitment to excellence;
- physicians exhibit a commitment to scholarship and to advancing their field;
- physicians deal with high levels of complexity and uncertainty; and,
- physicians reflect upon their actions and decisions. (142) (p. 614-5).

These characteristics of a professional are based in the understanding of a profession as a set of highly skilled practices which have at their base a moral foundation. The system of values that makes up the concept of a professional arise out of the social contract between a society and a profession, membership of which are entrusted by a public to act in their best interest (143).

So in order to maintain the public trust and the subsequent rewards and benefits that go along with this professional position, demonstration of trustworthy features in the form of professional behaviours must be instilled in the medical experience (20). Seen through the view of professionalism as a display of values in action, professionalism may be conceptualised as multidimensional and composed of: interpersonal (between patients and healthcare professionals); public (meeting societal demands as a profession); and intrapersonal (as an individual in a profession) levels (144). Recognising and enacting appropriate values within and between these three dimensions is necessary for ongoing membership in a profession.

The development of professional attributes in practitioners is therefore largely discussed in the areas of undergraduate and continuing education. In an attempt to cultivate both professionalism in member practitioners and overall professional standing, various curriculum designs have been implemented and evaluated by educators in a number of fields (145, 146). The problem with this is that professionalism is most often found modelled positively and negatively in the informal or hidden curriculum, and students report significant confusion and disillusionment with the incongruity between formal curriculum on professionalism and behaviours modelled by supervisors during their clinical education (147, 148). One study found

that clinical educators are acutely aware of lapses in their own professionalism and as with students' experience, while they recognise unprofessional behaviours in colleagues; they often feel unable to do anything about it (149).

The importance of role models and the embedding of professionalism over time through formal and informal experiences with mentors has been acknowledged (150). Kinghorn (151) argues that professionalism cannot be taught in a formal way, but must be acquired through ongoing practice under the guidance of teachers who embody professional qualities themselves. Mentoring of medical students during the clinical component of their undergraduate education has also been found to contribute to the professional and personal development of medical students (152). In line with the value based concept of professionalism, the development of reflective practises skills through critical reflection has been argued as a means by which to encourage the professionalism of upcoming practitioners in medicine (153) and other fields such as nursing (138). Based in the ever-changing diversity of medical practice, it appears necessary to conceive of professionalism and its cultivation from a complexity approach, in which professionalism is seen and taught as a complex adaptive system requiring ongoing and new learning (154, 155). Embedded in this is the feature of ongoing and deliberate critical and reflective enquiry undertaken by the medical professional, in an attempt to continually improve oneself, one's practice, and the knowledge and standing of one's wider profession.

Recently the development and conceptualisation of professionalism has been evaluated using the framework of Complexity Theory (19). What Hafferty and Levinson (19) suggest is that as our understanding of professionalism is evolving, and the concept and practice of professionalism can be seen to be one of a complex system involving social roles, social structures and environmental factors. Unlike early views of professionalism, which considered the successful development of professionalism to be highly dependent on the agency and motive of the individual, they argue that we can now see that professionalism and its education depends significantly on the state of the surrounding settings, organisations and social forces (19). As such, the informal and hidden curricula play a role in the education of professional behaviours, and there are multiple, dynamic learning systems which may be observed to surround the developing professional. These learning environments, "function within a web of interdependent relationships, each with its own distinctive identity, yet each dependent upon and shaped by the others." (19) (p.609). This understanding of the dynamic

and interconnected nature of professionalism and its development within practitioners aligns with our understanding of CM theory and practice structures.

2.4 Conclusion

In this chapter, I have attempted to present a brief review of the characteristic features of CM and WM. In attempting to explore the current definitions and ideas within these two broad fields, it is clear that both systems of thought and practice have developed and are continuing to develop in complex and contingent ways. Displaying many theoretical and practical differences in their underlying systemisation and clinical application, this review nonetheless suggests that CM and WM share fundamental features in common. These include, but are not limited to: recognition of the interconnected and relational nature of healing; attempts to apply systematic reasoning to clinical practice; and the ability to adapt and integrate change from within and from the outside; increasing realisation of the role of the practitioner in outcomes; and increasing recognition of the validity of the individual patient's experience. A review of the concepts of a profession and professionalism has also presented, so that the reader may be better positioned to enter into the consideration of evidence in relation to the claim for professional status, and the investigation of CM practice in Australia, in the following chapters.

Chapter 3: Evidence in medicine

The origin of the use of evidence in medicine is argued to date back to the beginnings of medicine – both Western and Chinese (27). However, it is the value ascribed to the form of evidence in medicine which appears to shift over time. Philosophers and experimentalists alike have realised that the extension from data to phenomena is laden with assumptions and beliefs. Awareness of this affects the nature of the claims we make about the world, and assertions of epistemological authority in medical knowledge are therefore subject to this also. Despite this, the scientific method in medicine has been developed and applied to the highly sophisticated point of the current randomised-control trial (RCT) and its meta-review. In this chapter I will attempt to expound our understanding of evidence in WM and CM through a brief historical review. The rise of Evidence Based Medicine (EBM) and research in medicine will be summarised. In addition, I will also address current issues in EBM and research: in particular the question of the "placebo effect" and the problem of probable deduction from research to practice. This chapter will build on the review from the previous chapter and will explore how the evolution and assertion of the professional power of medicine is inherently linked to its epistemological claims of truth and effectiveness.

3.1 Definition and History

In establishing the validity of a medical profession, it is important to consider the types of knowledge that are valued by the profession, and the evidence that it accepts. Questions of the truth of what we know and how we know what we know have long been incorporated in the human psyche, and like many others it can help us to understand from those who have considered these questions before us. In particular, if we are to appeal to scientific knowledge as the basis for medical validity, we must consider the reasoning and methodology underlying the justification for this claim. This includes a characterisation and acknowledgement of the shared beliefs underlying scientific propositions, in order to understand the abilities and limits in the medical realm.

3.1.1 Evidence in Western medicine

In the West the foundations of the search for systematised knowledge may be found in the roots of Socrates and the lineage of pupils who built upon his ideas. The method of critical analysis of arguments and statements in order to determine underlying truth, that were employed by Socrates in his discussions with aristocrats and young thinkers around 400BCE

Greece, may be argued to be Socrates' strongest legacy. The ideas of Socrates may be found through the works of Plato, one of his many students, who engaged Socrates' dialectical reasoning in a series of dialogues examining key philosophical issues, including the question of knowledge and ways of knowing. Plato elucidated Socrates' argument that in our quest for understanding, knowledge is acquired by remembering that which we already know. This appeal to a fundamental eternal nature within all of us was expanded in Plato's recollection of forms (156). Knowledge was further defined by Socrates and Plato as constituting two forms: that of opinion or belief; and genuine knowledge; which may be obtained through the application of critical reasoning and provision of justifications that give us reasons to accept it. In this we can see the basis of medical thinking in WM, which sees itself as relying on the application of critical reasoning in the pursuit and systematisation of knowledge. This may be argued to be a feature of CM also. In addition, the concept of access to an underlying, eternal knowing set of forms may be seen to be a feature of both WM and CM.

Historical insights

As a student of Plato, Aristotle also explored a range of philosophical questions, including the nature of knowledge and the development of his logical methods. The aspiration of his logic was to attempt to develop a complete method of reasoning that enables us to know all there is to know about the nature of reality. While he rejected Plato's concept of forms, Aristotle postulated the eternal existence of substance. Substance was seen by him as a fundamental category of being, and he attempted to categorise the nature of being through examination of language as a reflection of the way things actually are, and underlying truth. Aristotle argued for the eternal nature of the soul, and argued that all living things have a soul. This thesis relied on explanations that demonstrate the interconnectedness of living things, (in his treatise, On the Soul), and Aristotle argued that through sensation and reason we may come to a genuine knowing of the way things really are. In this, we can further see the underlying epistemological foundations in both WM and CM.

Almost 2000 years after Socrates, the scientific revolution of Copernicus, Kepler, Galileo and Newton developed Aristotelian empiricism from observation and logic to one that included mathematics and quantitative considerations. In line with these greats, Rene Descartes contributed to the development of the scientific method through his application of methodological scepticism. The French philosopher and mathematician developed atomistic ideas from the early Greeks and believed the universe was governed by mechanistic laws. He was looking for a first principle that was not only self-evident, but could also act as the foundation for the rest of that which is knowable to be derived (157). Reflecting the increasing

disillusion with the governing religious powers, Descartes employed ancient Greek scepticism combined with his mathematical rigour to examine all statements of philosophy. In this way, he followed Aristotle to a degree, but went further in that through his methodological doubt, he sought statements that were similar to mathematical principles, or statements of simple self-evidence, from which further truths may be deduced. From this came his *Cogito, ergo sum*, or, 'I think, therefore I am' (158). As the founding individualistic statement for the modern era of thinking, in here we may find a basis for self-awareness and reasoning about the world. To Descartes, this epistemological certainty, gave the defining differentiation between the subjective world of the deceiving senses, and the outside world, measurable by objective mathematical properties and objects. This difference, between our deceptive, sensory, subjective experience, and the ordered design of the external universe, was argued by Descartes to be connected in origin by God, a perfect, infinite being. The rational human may understand the material world through science and therefore in this duality God is removed from knowledge about the objective world and the mind is removed from the body.

A contemporary of Descartes, Bacon expanded the empirical ideas of the ancient Greeks. Building on current ideas, he rejected Aristotle's reliance on logical deduction, and emphasised the use of careful, systematic observation and experimentation to help understand the natural world (158). Application of this method would help discover new, progressive, useful, applicable knowledge that establishes humans' power in nature and the world. The employment of the human senses to discover the true basis for knowledge found only in the natural world, would validate itself through unbiased, repeated analysis of firm data, with inductive reasoning only applied in order to support empirically based conclusions. Bacon expounded the importance of removing all forms, previous thoughts, intentions, and assumptions, in the pursuit of experience and experimentation, in order to reveal the true nature of the universe and better humanity. And through this reliance on the senses and subsequent distinction from God as the means to knowledge, Bacon believed we may then come closer to God, found within. His programme was a natural philosophy that called humans to 'know thyself' and know the universe and nature, through the cultivation and practice of doubt (159). Bacon argued that that which comes from doubt can be more certain. While Bacon placed less importance on formal abstract reasoning and mathematics than Descartes, he also purported a science that essentially separated humans from nature and God, for he argued that humans were already close to God and their knowledge of themselves (160). Therefore, the use of our minds is the link between our knowledge of ourselves and our investigation of the natural world. Combined with Descartes rationalism, it may be argued that

together they founded the ideas underlying the modern scientific approach towards knowledge.

Through dialogue with his peers, the late 17th and early 18th century physician John Locke built upon the ideas proposed by Descartes and Bacon. He asked the question, 'What can we know?' and in this we can see the basis for the Western tradition of criticism and critical inquiry (157). In examining doubt, Locke realised a method of inquiry that opened the doors from observation to experiment. In the renunciation of the need for absolute statements, and the engagement with a practical, simple critical methodology of common-sense, the modern practice of science was enabled. The blank slate proposed by Bacon, was taken up by Locke, who argued that there are limits to human knowledge and we must stay in the bounds of what we know (161). The empiricist uses doubt as his starting point, to test everything through experience – including innate ideas and universal statements – and articulate through acknowledgement of the finite conditions involved. So the fundamental ideas according to Locke are, less about distinct principles of reality but rather present sensations and collections of consciousness.

With no inherent knowledge, the burden is now placed on demonstration through experience, and with the use of our reflective capacity, construction of the resulting evidence. Locke feels that only individuals exist, not universals, and that it is an error to construct universals (which we can never know) on the basis of evidence (157). To Locke identity is the basis for judgement and agreement – whereby simple ideas as substance are experienced through the senses and contribute to complex ideas on natural substance – but with no true knowledge of perfect forms, there is only our experience of simple forms and our reflection upon our experience. This gap between universal archetypes and our practical experience cannot be crossed, therefore to Locke science is always reaching towards eternal truth, maybe nearly but never attaining it (157).

The epistemological implications of empiricism are practically demonstrated in the methodology applied by Newton in his observation of the planets. Beautifully, we see the impressive result of empirical observation inducing exposition of the general nature of the relationships involved by way of mathematics, and then verification of these descriptive principles through further observations of the planetary system. During this collective project of modernity, the separation of science, morality and art was thought to be connected by the supremacy of reason and its systematic application (126). Values were thought to be the domain of morality, and it was supposed that natural philosophy was separated from the new

system of practical science. The practical method of looking at the world and the creation of further statements about the world is powerful in its appeal; however, as we shall soon see these statements are ultimately contextual and conditional on the stance of the perceiver.

Yet the scientific method employed by Galileo and Newton did not rely on the formal and explicit construction and testing of hypotheses, which can involve the co-creative use of prediction and experimental results by formulating a hypothesis based on observation, and then testing this in controlled experimental conditions (162). The comparison of the hypothesis with the results confirms the prediction. However little can actually be concluded from this method as the hypothesis must be null and other hypotheses may have led to the same results. The risk of false conclusions is high, and philosophers such as Popper attempted to develop methods that employed probabilities in order to account for this lack of explanation. By comparing hypotheses, calculating the probability of which hypothesis may be more probable than the others allows science to proffer somewhat more powerful descriptions of phenomena. Further to this we can see that it is important that the assumptions underlying the hypothesis are reasonable and *a priori*, and so Bayesian logic was developed to account for the constraints and subjectivities of probable statements (162). Decisions of significance are limited to probabilities and statistical claims. Philosophical insight allows us to understand therefore that these types of conclusions are ultimately accepted on the basis of social and personal interest and beliefs.

In our account of the history of the development of the ideas on evidence we find critical perspectives on knowledge and our ability to argue for any absolute truth from very early on. This is consolidated even further when we consider further philosophers' work. For example, George Berkley accepted the ideas of those who came before him, and contributed to the debate of what we can know by suggesting that if it is only ideas that we can know, and not the forms behind them, perhaps ideas are real just in their being represented in our senses. As a result, the previously un-crossable distinction between subject and object is removed, and the mind as perceiver of that which is perceived, still contributes to the objectivity of our knowledge. The recognition of sets and series of forms through our perceptions is possible when we reflect upon our perceptual experience as a whole, and we acknowledge the relational, representational nature of those things that we perceive. Likewise, it is then David Hume who strives to combine the previous propositions with the experimental method of Newton. He does this by applying criticism to the philosophy which came before, and ends in scepticism. Differentiating between impressions and ideas, Hume argues that impressions, or

sense perceptions, are remembered and mediated by the imagination, as ideas (163). With the imagination, the constructor and elaborator, we can build a basis for knowledge of our experience of the world. However, this more psychological basis for knowledge can be destroyed by the criticism it was based upon, by rendering nothing knowable. Cause and effect, identity, and external objects, are all then providence of the subjective, imaginative mind, and not reason.

Further philosophical developments

When we can see that previous attempts at a valid theory of abstraction had failed – the philosopher Immanuel Kant worked through the problem further. Kant pronounced that "physics works" whereas "metaphysics does not work" (164).

> What troubled Kant about [*a priori*] judgements is not only that they seemed to go beyond "all possible experience", but that they do so because they pretend to pronounce on the ultimate nature of all reality as *in itself*. (157)p. 413).

The complex 'categories' of knowing and rejection of judgement as truth that are subsequently elaborated by Kant, take us to an episteme of transcendent knowledge that is impossible for us to attain. Kuhn was one of the most well-known to acknowledge the social factors inherent in science, and therefore scientific medicine, in the idea that scientific experiment and theory occurs within wider social networks and frameworks, or "paradigms". These socially constructed paradigms may include not only knowledge that derives from scientific investigation and reasoning, but is also composed of and by the various beliefs, values, and methods shared by particular communities Kant (165). These socially constructed paradigms include education, membership, communication, and the interpretative inclusion of new knowledge. Kuhn argues therefore that a paradigm cannot be established with facts alone, but also '"cultural, political and ideological" beliefs and values – social factors. And he suggests that it is only by stepping outside one's paradigm that one can see the distinction between what is believed and valued, and truth.

The theory ladenness of empirical knowledge reoccurs throughout the historical development of the theories of knowledge presented here. Despite its argued epistemological base in science, as we have seen many have realised that facts and values are not easily separated, and Komesaroff (126) notes that this is particularly the case in medicine. Like many others, he points out the interdependence of medicine and society, and emphasises the diverse social and cultural relations of medicine as therefore ethical in question and value. The use of science and reason as the basis for medicine on principle excludes the relative state of the body,

values, and social considerations (126). Despite this, in recent times the dominant ideological force in medicine has been the construction of a system of medicine based in science.

Postmodernist thinking

As a rigorous development of the insights above, the introduction of postmodernism recognises the possibility of a plurality of standpoints and we find no singular, dominant claim to truth. As Komesaroff (126) notes,

> In the place of the central, potent subject, it offers the "decentred" subject, no longer structurally disengaged from the social processes which constituted it, but implicated within them and constantly being generated by them. This subject is not a centre within an abstracted space of epistemological, aesthetic, and ethical theory; it cannot be separated from the hermeneutical space of praxis and intersubjective communication, and [..] it cannot be understood apart from the irreducible and inexorable fact of its embodiment. (126) (p.10)

To understand the human body as the scientifically constructed 'object' of medicine, and yet also recognise as early philosophers did, that the body is our frame of reference and our interpreter and source of meaning in the world, we can see that the object of medicine is a complex, value-bound, culturally-generated experience. "The body is an effect of the extant, culturally contingent forms of discourse within which medicine operates and which also finds expression in the contemporaneous political forms. Language and corporeality, therefore are closely aligned." (126) The recognition of the irreducible role of the subject in constructing and formulating truth, and the dependence of truth on theory and theoretical structures, it is a small step to recognise that different systems (such as WM and CM) can co-exist.

Drawing on the work of Husserl and Heidegger, Merleau-Ponty (166) highlighted the object-subject of knowledge construction and the way in which the sensory nature of our minds and bodies construe and construct the world around us. As social and physical beings in the world and of the world, he argued that the 'embodied' nature of our actions and interactions in creating and defining the world around us mean that the knowledge we derived from this process is sensorial, involving both the mind and the body, and cannot be separated (167). The consideration of this embodied or phenomenological nature of life and reality is an alternative approach to positivist attempts to separate knowledge from the surrounding world, and from our selves.

The sociological perspective of Pierre Bourdieu further emphasised the reflexive nature of knowledge and the way we know things and ourselves. Bourdieu rejected the objective and scientific approach to the body. In formulating his sociological theory, he argued that we derive meaning from the settings surrounding our existence (168) (1977). These surroundings contribute to our 'habitus', which is the, "interpenetration of our social, cultural and physical environment – the faces, places and spaces – that we as social beings inhabit, through which we know ourselves and by which others identify us." (167) (p. 102). We embody these socio-political factors in our physical expressions and lived experience. Bourdieu suggested that often we are not aware that, "we re-present that knowledge and those behaviours" (167) (p. 103) and that as researchers particularly we must be all the more acute to this state of being and construction of knowledge.

As a result of these ideas we can no longer feel confident in our ability to assert what we know as universal. What we know and how we know it is not so easily rendered categorically true and instead we find that the world is made up of what appears to be complex, sensorial phenomenon. Komesaroff (126) notes, "The three pillars of modernity – science, morality, and art – can no longer be kept radically separate. While they are each more diverse than they once were, their shared assumptions and their mutual interdependence are now evident. Within medicine, science and ethics – and, some would say, art – are indivisible." (126). We have seen in this section that theory and truth are heavily, if not entirely, interdependent, and that evidence is inexorably embedded in theory, and all of it is intertwined with the presiding social and cultural ideas of the time. And we realise repeated dissolution of the ideal of a single, unitary and unifying concept of evidence or truth or knowledge. Despite this understanding, attempts towards an ideological alignment with science in WM have been strong in effort and influence. Scientific research and findings supported by the argument of EBM are now idealised as the basis for policy and public funding – including education, research, infrastructure, and health care funding.

3.1.2 Evidence-based medicine (EBM)

As I have described in the previous sections, the ideas behind the current emphasis on a science based approach to medicine were developed over time by a number of important philosophers and physicians. This section explores some elements of the history of EBM and some of its consequences, including in particular inherent tensions in the relationship between EBM and clinical practice. Questions of both knowledge and ethics will be explored, in the light of the contemporary understanding of clinical medicine, philosophy of science and ethical

theory. It will be concluded that the very complexity that EBM highlights, delimits its application in entirety.

The introduction of EBM

EBM was put forward by the Evidence-Based Medicine Working Group (EBMWG) in 1992 as a new paradigm for the teaching and practice of medicine (169). Arguing that the erstwhile framework was no longer tenable, in large part because of the introduction of the randomised controlled trial (RCT), the EBMWG proposed a set of assumptions as the basis for their proposed alternative. These included: the devaluation of clinical experience when compared to reproducible, unbiased, systematic observations; the inability of pathophysiological mechanisms to guide clinical decision making regarding diagnostic testing and treatment efficacy; and the need for rigorous guidelines for the interpretation of the medical literature. According to the EBMWG, appeal to authority no longer carried credibility as a basis for practical action, because the opinions of teachers, role-models, peers, and practitioners in general, while admittedly an important part of the culture of medicine, cannot be made subject to strict scientific criteria of truth or validity. Instead, only evidence considered fully 'scientific' should be truly valued. A direct beneficial consequence of this change is "that physicians whose practice is based on an understanding of the underlying evidence will provide superior patient care" (169). While EBM practitioners can undoubtedly be aware of and considerate towards their patients' emotional needs and suffering, systematic behavioural science RCTs were to be taken as the necessary and sufficient evidentiary basis for all clinical interactions. What is more, EBM came with a comprehensive program: strategies for and potential barriers to its implementation in the domains of education and clinical practice were built into its structure from the outset. It took on a 'cult-like status' in medicine, however EBM has overstepped its initial aspirations and it has become necessary to reconsider its value.

Put forward as a formal structure that would generate significant improvements in patient care, educational methods (23, 170), practice methodologies (23), and efficiency in the use of resources (171), EBM quickly became 'a hot topic' for debate, ultimately itself becoming well entrenched in the public discourses around medicine, as well as being adopted in other disciplines and fields. Supporters responded to criticism with argument and definitional refinement (172). They appealed to the 'ancient origins' of EBM and argued that in its modern form it should be practised by integrating the best available evidence and clinical guidelines with clinical expertise, thereby ensuring that the "best interests" of the individual patient will be protected (7). Responding to the need to explain how EBM may be linked to practice, solutions were put forward seeking to narrow the gap between research evidence and clinical

decision making. These included: the implementation of services and systems that summarise and consolidate information; the development of evidence based clinical guidelines; facilities and incentives to encourage EBM practice; improvements in education programs; and the development of more effective strategies to encourage patient compliance (171). The uptake of EBM in service decisions claims to effectiveness, and research funding was quick, and yet concerns remain, as there is deeper problem

The fundamental flaw of EBM

As the EBM movement developed, the concept of a "hierarchy" of levels of evidence on which it was conceptually based has been defined with increasing detail, even if complete consensus about the taxonomy remained lacking. Today a number of classifications are available, which differ in their valuation of varying forms of evidence. The Cochrane collaboration was established in 1993 as the mediator of best available evidence. It places the highest emphasis on systematic reviews and meta-analyses of the effectiveness of healthcare interventions and treatments. This attempt to systematise EBM in a manner that was directed towards providing practical guidance for clinical practitioners, patients and policymakers, has inevitably shed light on the more fundamental and persistent problems underlying evidence and its use in health care decisions. In particular, it has drawn attention to the fact that the meaning of what constitutes scientific evidence differs between primary care physicians and producers of knowledge (173). Certain types of evidence, such as that generated by the wide range of extant qualitative methodological approaches, which are associated with non-objectivist forms of knowledge, are still regarded by EBM and funding deciders as of lesser status and validity (174). The idea that not all evidence is equal begs a value claim and the questions of what we can know, and what knowledge should be most valued, continues on as it has from the philosophers in Ancient Greece.

In spite of this expansion of the EBM approach into policy, education, and practice, the theoretical justification and working definitions of EBM (albeit inconsistent) appear to have changed very little since the initial discussions and debates. This is reflected in the lack of recent definition in the EBM literature, for example in referring to a publication from the year 1996 (7), in defining EBM on the Cochrane Collaboration website (175). The focus of EBM advocates has moved to increasingly complex research, statistical, and dissemination techniques i.e. (176-178). The establishment of epidemiological science, pioneered by Archie Cochrane (among others) and realised in the Cochrane Collaboration, as the pre-eminent, single and unitary evidentiary basis for medicine, was well-received by most sectors of the medical community, who readily agreed with the central and compelling proposition of the

EBMWG that medicine should be based on the purported best available evidence. However, the issues surrounding the nature of evidence and our ability to deduce truth claims from the individual to the generalizable, and vice versa, remain (179). The problem is that this proposition is largely polemical, because it obscures the theory-laden nature of evidence itself and ignores the role of social and cultural factors in defining prevailing criteria of truth. It therefore ignores the ideological nature of the entire EBM approach and movement and its systematic exclusion of forms of knowledge that do not conform to those currently favoured by the contemporary institutions of power.

EBM in practice

Despite the enthusiastic reception of EBM and its subsidiary, Evidence Based Practice (EBP), there are fundamental difficulties in its application, and here is why. Ironically, this is due to the ever-increasing output of research and guidelines, for the more we attempt to research and practice medicine using the ideals of EBM, the more we are seeing its limitations (180, 181). While there has been a welcoming attitude towards EBM, its impact on practice has been much less observed (182-184). It is not that EBM is wrong in itself. What is problematic is that it conceives of only one kind of evidence, while we now know there are many.

Concerns have been raised in particular about the applicability of EBP to the complex nature of health promotion, within the limits of funding and policy constraints experienced by individuals and organisations, and the need for models to be developed that recognise the true complexity of the contexts within which healthcare decisions are made (182). For example, when compared to hospital based doctors, general practitioners (GPs) are more likely to report issues of information access and time in their practice of EBM (185). According to GPs, the practical implementation of EBM is among other things, limited by the practitioners' personal and professional experiences, their relationships with individual patients, perceived discrepancies between primary and secondary care, the interactions between clinical evidence and the emotions of the patient and practitioner, the powerful influence a doctor's choice of words may have on a patients decision, and the logistics of everyday practice including time and financial considerations (183, 186).

Doctors have been found to be uncomfortable incorporating EBM-prescribing decisions into their practice. Despite their desire to live up to the perceived ideals of EBM, they are influenced by non-research evidence including their expertise and individual patient circumstances in their decision making (187). These results have been explained as the misconception that EBM does not accept clinical experience and individual factors. However

the discomfort still exists, as the attitude that EBM is incommensurate with patient-centred care persists with doctors. Lewis and Tully (187), recommended the development of an EBM model that more accurately reflects clinical practice. Further to this, it must be acknowledged that not only is clinical knowledge directly relevant to clinical practice, but it is a different kind of knowledge that must be incorporated and deployed within medicine very differently to other kinds of evidence.

As well as the challenges faced by clinical practitioners, a review of residents' application of EBM in their daily practice found that they also struggled with a lack of role models, influences from supervisors, lack of experience in EBM, and feelings of being unable to control institutional conditions (188). Further integration and standardisation of EBM into education is repeatedly recommended (189). Clinical practice guidelines have been implemented to help improve the transition from evidence into practice; however, the variability in their use by GPs has also been affected by questions regarding the applicability of the guidelines, their format and flexibility, and whether they are prescriptive or proscriptive in their behaviour advice (190). For example, in the application of EBM guidelines to the management of back pain, GPs have reported feelings of frustration based on the mismatch between clinical guidelines, the patient-doctor relationship, and the constraints and demands of time, resources, awareness, the medical system and the local environment (191, 192). Professional identity and responsibility are also key themes emerging from the literature, and guidelines are seen by GPs as limiting their clinical autonomy and undermining their alliances with their patients on an individual level (193). Calls for transparency in the development of clinical standards (193), and collaboration between evidence producers and users (173), have emerged. In addition, actual decisions are often negotiated step by step between doctors and patients, with an often indeterminate array of influences supervening. Often, decisions are taken, or accumulate, incrementally over time, allowing patients to incorporate more limited treatment options into changed life circumstances. Further, while clinical studies go to great lengths to control for "placebo" responses, these are not necessarily unimportant or irrelevant in daily practice: on the contrary, controlled use of non-drug therapeutic modalities – what is often pejoratively dismissed as "placebo" – is a legitimate, traditional component of all medical care.

Complexity confounds the value of EBM

EBM advocates have attempted to address a number of the obstacles and incentives involved in the practical uptake of EBM. These are seen to include the characteristics of practitioners and patients (194), the ethical components of clinical decision making (195), improving research output (95), and social, organisational, economic and political factors (23). Likewise,

the complexity of the clinical encounter and the actual lack of medical, contextual and policy evidence are issues that have also been identified as important in the successful integration of EBM into daily practice (196). The relative importance of more and more forms of evidence are being argued for inclusion within the hierarchy of EBM, like for example, mechanistic evidence (197), qualitative inquiry (198),and expertise, narrative and shared goals (199).

Major difficulties in the successful implementation and application of CPGs in clinical practice have emerged, and it has been argued that attempts to improve the uptake of new evidence and guidelines in local practices must employ multiple strategies and accommodate for many factors, such as the nature of the evidence being implemented, individual practitioner values and different organisational cultures (13, 94). Local environmental factors and practical considerations are also now being considered in the improvement of clinical practice guidelines (200). However, the attempt to include the complexity of factors involved in the therapeutic environment and exchange, and the increasing inclusion of factors in the decision-making base of clinical practice and medicine into the domain of EBM, such as, "integration of self-reflective practice by clinicians; involvement of the patient in generation of research questions and interpretation of data; inquiry into the systems affecting health care and investigation of disease events; and diagnostic approaches and treatment effects in patients over time" (196), threatens the internal validity of EBM as it attempts too broad a definition. Haynes and Haines (171) state,

> Evaluating the patient's clinical circumstances requires clinical expertise, without which no amount of research evidence will suffice. Also, and increasingly, the patient's preferences, values, and rights are entering into the process of deciding on appropriate management.

As Druess notes, "overly inclusive definitions threaten to deprive the term of meaning, and unchecked use increases the risk of misuse."(201). As the definition of EBM expands to include increasingly complex and interrelated factors, EBM potentiates its paradigmatic demise, according to the claims EBM itself purports.

EBM as the basis for policy making has been criticised also. Not for its complete lack of applicability, but rather in recognition of the complexity of policy-making decisions, which must consider not only the best available evidence of an objectivist kind, but also competing and changing values, interests and contexts, i.e. other types of evidence (202). Emerging social science perspectives on EBM suggest that the humanistic and political economy implications of

EBM emphasise the multi-dimensional, democratic, local and translocal nature of evidence (203). EBM has been criticised for giving 'mixed messages', in its assertion that evidence in the form of systematic reviews far outweighs the value of individual experience, and then at the same time stating that individual clinical judgement is essential (204). The appeal to decision making based on evidence alone denies clinicians the sophistication of reasoning inherent to professional status.

Further moral and theoretical inequalities

EBM risks straying from medicine's core intention: to relieve suffering. Tonelli (8, 205) has highlighted the gap inherent between forms of evidence and their values, that becomes apparent in the passage from clinical research to practice. He stresses that the inability for EBM to account for the individual (with its emphasis on the population) as well as the complex nature of clinical judgement, calls for a reconsideration of acceptable knowledge in definitions of clinical reasoning to be more in line with the reality of the clinical setting with its ultimately unscientific, and yet still rigorous, nature. Evidence from clinical trials is ultimately insufficient (8), as it cannot account for patient meaning, experience of illness, goals and values. EBM creates a distance between research and practice that is "not only an epistemological but also an ethical gap" (pg. 1236) and it has been argued further that it is not wrong to preference patient values over the best available evidence (206). Thorgaard and Jensen (207), argue that the patient must be included in clinical decisions, and that the view of clinical practice as a craft with practical knowledge must be integrated into our understanding and application of clinical reasoning. They emphasise the interconnectedness of the clinical experience with clinical reasoning.

Nonetheless, the attempt to refine the palate of EBM continues. The argument has been made that EBM (and its EBP) is a valid epistemological system, couched within the traditions of philosophy of science(208). Arguing that EBM has "embraced most of the forms of scientific reasoning that have been developed so far", in particular inductive reasoning, falsificationism, and holism, Djulbegovic and colleagues (208) conclude that EBM should be considered "a continuously evolving heuristic structure for optimising clinical practice." (p.158). Critics of this view have rightly pointed out that the proponents of this argument contradict themselves when they say, on the one hand, that "because EBM proposes a specific relationship between theory, evidence and knowledge, its theoretical basis can be understood as an epistemological system", while going on to conclude that "EBM does not have a rigorous epistemological stance" (209). The EBM attempt to systematize the complex, multidimensional experience of knowledge may have lost itself in its "all-things-to-all" approach (210). It is still argued that

EBM is yet to proffer a clear picture of itself (211). The connection between scientific evidence and the medical decision, as Djulbegovic et al. (208) acknowledge, is yet to be negotiated successfully, and EBM is yet to provide a framework to enable this. And as Tanenbaum (210) points out, the appeal to philosophy of science does not still provide the empirical proof or evidence of the benefits that EBM are claiming. With an as yet unspecified theoretical mechanism, EBM appears to be waiting still for the evidence that may support its application not as science, but as the practical basis of medicine decision-making. Tanenbaum (210) notes,

> Critics of EBM do not oppose the integration of statistical findings into clinical medicine. They do take issue with blanket privilege granted such findings and the unrealistic claims made for the benefits of this knowledge regime. (p. 915).

It has been argued that EBM does not satisfy its own requirements for itself, as "EBM founders have never undertaken an RCT of the effect of EBM on patient outcome" (212) Further to this, EBM is a ranking system of research outcomes, not clinical research itself, and is therefore itself based on the expert opinion which it devalues (212). EBM becomes a political tool because it attempts to impose power on knowledge in order to exclude alternative modalities of understanding and knowledge.

Re-evaluating the value of EBM

EBM has also been criticised as being a political tool designed to promote the health economy (210, 213). It is argued to have achieved its irrefutable and cult-like status based on its appeal to the use of best evidence, a premise easily accepted by most practitioners. And yet the use of RCTs and statistical methods can be seen to be ill-aligned to the acknowledgement of medicine as a moral system and the value we place on the relief of suffering. Little (174), points out that EBM is paternalistic in its lack of respect for individual autonomy and decisions, and, through its reductionist approach, actually risks harm in a field that is calling for a more holistic and pluralistic approach. Quoting Cochrane, Little(174) supports the belief that evidence has an important place in the individually-based discussions and decisions made in clinical practice, however goes further to warn that the uniformity in EBM's 'one-size-fits-all' promise has its dangers.

Even here, EBM has attempted to respond and adapt, but again it falls short. The discomfort experienced as a result of the emphasis on population studies in the EBM system has been noted (179, 199, 214). And low levels of public willingness to participate in clinical trials present another problem (215). Djulbegovic, Morris and Lyman (216) advocate a 'consilient' approach to evidence and are among others who argue that other forms of evidence, such as

personal physicians' knowledge, should be included in a hierarchy of evidence that is more reflective of, and applicable to, clinical practice and medical decision making. Tonelli (217) has gone further and argued for the abandonment of the referent and idea of our use of evidence in clinical decision making. He reframes evidence in medicine in the terms of examining and evaluating the validity of potential 'facts and warrants' in clinical decision making, because, "therapeutics is not a truth-testing activity but a prudential effort to benefit an individual in need" (217) (p.320). Clearly, the solution to balancing research evidence with the inclusion of the individual patient's preferences and circumstances in clinical practice is now understood to "require a multitude of solutions for diverse patients and doctors operating in a range of contexts and health care services" (218) (p.411). When we introduce a more contemporary conception of knowledge like this into medicine we find no singular, dominant claim to truth, but rather a complexity and plurality of interconnected discourses/states/factors/variables that begs the existence of local, diverse, equally valid, decentred states of experience. Despite the lobby for the epistemological base of medicine to be primarily 'scientific', the realisation that facts and values are not easily separated, is particularly the case in medicine (126) (p. 4). The interdependence of medicine and society, and the diverse social and cultural relations embedded within and around medicine, become ethical in question and value. The problem of the reducibility from the universal to the individual, not yet completely answered by any thinker in history, scientific or otherwise, significantly darkens EBMs attempts to do otherwise.

Early EBM advocates stated that "everyone is still ignorant about the art of clinical practice" (171). This may be accurate from a singular perspective; however when different forms of knowledge are valued, such as peer knowledge, experience, or authority, this no longer becomes the case, and 'the art of clinical practice' may be well recognised, transmissible and effective. The motivation to counter-balance scientific medicine can be recently found within many areas of medicine, such as the rising emphasis on "patient-centred-care" (105), and increasing education on ethics and professionalism (219). Qualitative studies in medicine (i.e (220, 221) and related fields such as nursing (222, 223) are increasingly being undertaken in an attempt to understand the practitioner experience and the practitioner-patient encounter. The irony is that despite EBM's original assertion that many aspects of clinical practice are outside the domain of scientific research (169), more and more research evidence is now also helping us understand the factors inherent in clinical practice and the therapeutic encounter. The more medicine attempts to simplify itself, the more we see that it is a medical system that is complex, structural, cultural, and changing. Medicine is realising the complexity it has always

practised within. And through this, more and more theoretical and practical intersections with CM and other CAMs are emerging.

The value of medicine as a profession

The benefits of the attempt to evidence-base medicine highlights the difficulty of asserting universals, as EBM – in definition, education, translation to practice, and policy –becomes increasing complex and local in implementation. The overall recognition of the autonomy and inherent rights of the individual, found in ethics, and the ideals of medical decision-making, is balanced with the experienced complexity of the medical experience. The recent shift to emphasise the use of evidence to support 'shared decision making' between the patient and the practitioner(195), leads EBM to another perspective. EBM has led itself to its 'other'– the validity of multiple local perspectives, not only wider systematic forms of knowledge and claims to truth. This is the identity of the practice of medicine, and it is the application of universal medical ideas that are interpreted and applied by individual clinicians, to individual patients, in their complex settings and structures that gives medicine its professional privilege and power. The professional standards of education, ethics, and responsibility for patient care and outcome are examples of the overarching values that practitioners attempt to implement in the medical decisions they make, and must be willing to justify, with and for patients. The ownership of the complex risk-based decisions regularly made in multi-factorial, often difficult time and situational bases, for each and every patient, is what distinguishes the professional from the technician (128). Further, the wider professional ownership and application of knowledge relating to a specified domain is what enables medicine to maintain the relationship of trust given to it by its patients. It is not the standardisation of medical claims that engages the public, but the interpretation and translation of this knowledge to the individual patients' current presenting experience, and assist in relief of their suffering.

In conclusion

It seems appropriate to suggest that it is medicine's willingness to go to the places where life is uncomfortable, where chaos appears, and to find the connectedness between that experience and the system of medicine, and therefore life, that is any medicines' value to people. It aims to bring people home: from suffering to comfort. It follows that medicine by definition will therefore never be completely known, as it embraces and integrates the unknown into our ever-expanding understanding of human experience. The systematic recognition of the interconnected, changing nature of medicine and its participants is not a threat to EBM, but rather a reminder of the complex epistemological territory that medicine inhabits. By contextualising EBM in relation to the multiplicity of medical practices, with the heteroglossia

of languages and practices that are used to activate these, and the meaning embedded in its web of relationships, that is at least as diverse as it's number of participants, we are appealing to a more democratic regime that recognises many other discourses, which in constellation, compose the clinical encounter. This does not mean that EBM is not valid, nor to devalue the EBM and the use of evidence in practice, but reflects a more accurate way and understanding of what we do and avoids the inherent totalitarianism of EBM. Science-based results used in medical practice are factors among many to be considered by individual practitioners and patients. The claim to truth must be moderated by the public acknowledgement of its bounds, and to be valid, EBM must do that too. Scientific and evidentiary claims cannot be separated from the value frameworks that gave rise to them, and their validity depends on the parameters which they set for themselves. EBM devalues itself when it claims to be the sole evidentiary standard for the clinical practice of medicine.

3.1.3 Evidence in Chinese medicine

The development of knowledge and accepted forms of evidence in CM has been one of a continuous and diverse evolution over thousands of years. CM practice has been found to take on a local praxis; with the practitioner as central to the ongoing and changing formation and determination of theoretical and clinical knowledge, as we have mentioned in the previous chapter. A number of central and key physicians can be seen to play a historical role in the compilation of evidence in CM over the last few centuries. These include, for example: the famous physician from the 6th century, Yi He, who discussed the many causes of diseases; or Bian Que, who in 5th century BC employed a variety of diagnostic and therapeutic methods in the treatment of disease; and Hua Tuo, the famous CM scientist who made significant developments in the fields of surgery and herbal formulae in the 2nd century AD (30). These and many more scholar physicians all contributed to the development of CM theories and clinical knowledge over time.

It is argued that accepted forms of knowledge in CM may include: authority and tradition; apprenticeship and role-modelling; study of classic texts, experience and reflection, experience through 'trial and error'; and the use of quantitative and qualitative research methods (72). In CM, forms of knowledge used include propositional knowledge, non-propositional knowledge and personal knowledge (72). These Western philosophical categories of knowledge may be useful to consider here. Propositional knowledge is, "the 'objective' knowledge of a profession in the sense that it constitutes the documented and public knowledge of the profession" based on the shared discourse, and is found in academic texts, textbooks and journals (72). Non-propositional knowledge may be understood as the practical knowledge derived through

experience and practice, and that is not transformed into generalisable knowledge. It is often now considered below propositional knowledge in hierarchical terms, and according to (72) may be suggestive of the theory and practice divide articulated in WM. However, it may also be that non-propositional knowledge is irreducible within the clinical setting, and that there is therefore a level of uncertainty that must be acknowledged in clinical knowledge.

The idea of professional craft knowledge can be understood to be the collection of various forms of non-propositional knowledge, including practical experience, skill, clinical knowledge, intuition, and tacit knowledge (72). Nester (72) argues that, "it is important for the acupuncture profession that an effort is made to further transform professional craft knowledge into propositional knowledge" (p. 25), that could result in improved understanding and descriptions of CM practice. Personal knowledge – derived from individual experience and personal reflection – also has a place in CM, and may be understood as an irreducible part of the knowing experience, as new knowledge is integrated onto one's existing base of knowledge. Knowledge from clinical practice, which makes up a large body of knowledge in CM, has recently been less valued by WM in ideology. This may be because clinical knowledge does not necessarily fall under the mechanistic approach favoured by scientific methods, and yet this does not necessarily explain the effectiveness of the therapeutic approach (72). This is because knowledge in CM involves more than just epistemological categories, but ontological aspects that infiltrate the entire episteme. We can see this in the importance of the teacher-student relationship and the revere demonstrated towards senior practitioners.

In the past and to this day we find that CM practitioners place a high level of value upon knowledge learned from following a senior clinician. This is despite the standardisation of CM knowledge into texts and *Bian Zheng Lun Zhi* (pattern differentiation and treatment determination) by the Chinese politic, which ironically led to a re-emphasis on the importance of experience in the correct and constantly changing diagnostic encounter (2). Academic accounts of time spent observing and interacting with CM clinicians demonstrate that clinical knowledge passed down through generations of practitioners and from famous teachers can be closely and competitively guarded (2, 70). Teaching and the transmission of knowledge are key structural features embedded within the historical and ongoing construction of CM theories and practices. This social and hierarchical feature of CM, which acknowledges the master-apprentice manifestation of both knowledge and power, is at the same time a fundamental premise as it is as diverse as the participants involved. This highlights again the importance and value placed on knowledge that is derived and developed in the immediacy of

the CM clinical setting, and the importance of pedagogy in the construction of CM knowledge as it is embodied, transmitted, and applied (70).

The use and accepted validity of clinical case studies in CM further highlight this point, where case studies have been argued to be well suited to CM and demonstrate the link between CM theory and practice (224). Case studies in CM may also be seen to help reframe research designs in CM, by providing more detailed insights into factors involved in the clinical encounter and the intervention. For example, case studies in CM may better highlight the quite common phenomena of non-specific effects in CM, whereby resolution of the main complaint is or is not accompanied by resolution of other symptoms that may seem to be unrelated to the main complaint (9). There are a lot of misunderstandings about the use and validity of case studies, including the misperceptions that they are not generalizable and cannot contribute to the development of knowledge, and that they tend to confirm the pre-conceived notions of the compiler (225). Used by Hippocrates, n=1 or case studies, have made significant contributions to medical knowledge and research in the past, and it may be argued that they are still, a valuable form of knowledge in WM as well (226).

Unlike in WM, a number of extant classical texts are highly regarded and used by CM practitioners in daily practice. Examples of these include the *Huang di Nei Jing* (Huang Di's Canon of Medicine) and the *Shang Han Lun* (Treatise on Cold Disorders), both of which are taught in some Australian universities. Clinical knowledge that has survived for hundreds or thousands of years is seen as demonstration of its efficacy by many practitioners. However, it is important to remember that this not considered to be some static set of clinical principles, but rather a dynamic, applied synthesis of multiple sets and types of knowledge, practised in the constantly changing clinical setting by individual CM practitioners.

Farquhar (70) relates this to the wider project of characterising knowledge in CM,

> A focus on the clinical work of CM that privileges the practical and the temporal reveals CM classification as a method of deploying material from the archive within specific projects of healing, a continual subordination of formalised knowledge to the concrete demands of the moment. Such an orientation can restore practice to a certain intellectual dignity but it makes it difficult to reconstruct an overarching system of disembodied and self-consistent traditional knowledge. Once the forms of intellectual and clinical practice within which Chinese medicine people live and work are taken seriously on their own terms, abstract, comprehensive, or ahistorical

> knowledge systems no longer clarify very much. This is arguably as true for the Chinese medicine of the past as it is for that of the present. (p.38-39)

Flexibility and adaptability within and between the knowledge constructs in CM are arguably more important than the ability to extend this knowledge towards any generalised statements or predictive power. Knowledge as it is understood within CM is therefore as valued as much as it may be applied within the complex and relational structure of the clinical consultation (70). Farquhars' (70) ethnographic account of CM practice situates the epistemological frameworks of CM, including historical knowledge and the *Bian Zhen Lun Zhi*, as providing resources more than constraints, and sees the conditions and limits presented by the patient not as limiting factors, but sources from which a CM doctor may generate a clearer understanding of the pattern and its treatment.

In the characterisation of knowledge in CM presented here, the indivisibility of knowledge and the social realm is therefore apparent and unashamed. The importance of transmission of knowledge from experienced teachers, the importance of clinical experience, and the emphasis on practitioner observation and patient experience secure this statement. The knower and the known are fundamentally intertwined within the structures of CM, and as such we may not therefore so easily understand the epistemology CM without also including ontological understandings of being.

3.1.4 Chinese medicine as science

As a response to the call for evidence based CAM (227), many CAM and CM academics have supported research based on the EBM approach (16, 55, 228, 229). Concerns about the safety and effectiveness of CM techniques, in particular acupuncture, and doubts about the ability to assess them through scientific research methods have been well addressed in recent times (230). At the same time, there are calls to keep an open mind in evaluating CAMs as more scientific research is carried out (41). Differences between WM and CAM paradigms and constructions of knowledge have been acknowledged (231, 232). These and other challenges in applying EBM research methods to CAM's have been identified and yet, despite increasing evidence available, calls to apply biomedical research standards to CAMs have been questioned as politically motivated and intended to enforce biomedical dominance (233). Despite a lack of research funding and findings overall, there is a growing number of research studies and systematic reviews of CM being carried out (55).

Shea (2006) argues that critics of CM and its investigation using EBM methods such as RCTs present oversimplifications of CM, WM, EBM and RCTs, and that while there is a way to go,

there are a number of innovative methods being developed to test CM using clinical trial designs in ways that are more true to CM. Criteria for assessment of research, such as the Consolidated Standards of Reporting Trials (CONSORT) for acupuncture research, have been developed in an attempt to standardise reporting and improve the assessment of findings (234). Methods designed to assess CM concepts such as yin and yang (235), pattern diagnosis (236), and pulse diagnosis (237) have been developed and tested in an attempt to integrate CM concepts within the EBM research using RCTs. Other modifications to the research process have led to methods such as pragmatic research, which attempts to account for multiple factors and test modalities of CM against the already available best treatment option, and reflecting as much as possible the local, clinical environment within the RCT structure (238, 239). The incorporation of qualitative methods in RCTs is another area of research design intended to improve the evaluation of CAM interventions (240, 241). Research strategies that further recognise the experiential (232) and complex basis (242) of CM and its techniques are also being recommended.

It is only in relatively recent times that research has been undertaken on the efficacy and mechanisms of acupuncture and Chinese herbal medicine using biomedical research methods. Under this model, acupuncture has often been suggested to be no more effective than a sham or placebo (243, 244). Based on reviews of the available evidence so far, it has been suggested that research into CM techniques must be carried out according to Western scientific standards (15), and that the theoretical model underlying practices such as acupuncture are insufficient under the accepted scientific model (245). Others have argued that Chinese medical explanatory and diagnostic models must also be included in the examination, using critical reflection that incorporates the underlying CM methodology (246). According to Buck, the existence of CM's locally responsive and pragmatic medical model begs a comparison with WM, and the question of what each can offer to the other. Issues of terminological translation, rationality, and context in understanding, are surmountable in his mind, and correlates may be elucidated through research and knowledge. Buck calls for continued evaluation of the CM explanatory model, in honour of the many CM practitioners who have been doing so for centuries, and in support of the increasing professionalization of the practice within grounds on which CM may stand strong.

The debate as to whether or not Chinese medical theory is 'scientific' or not continues in China as well as the rest of the world, and underlying this is our understanding of what is science. As we have realised in the previous section, recent postmodern theory in the West has widened

this question and allowed the relative and local a place in discussions of science, giving Chinese medicine a theoretical legitimacy. However this has been slow to disseminate through research and practice. This question of the scientific model as being the singular base for our expanding conceptualisation of the world is being increasingly considered, and the question raises an examination of what knowledge is meaningful in medicine. As Liu (247) describes,

> The fundamental basis of modern Western science is empirical validation while Chinese medicine, as a local knowledge, has gone through a long-time evolutionary selection in its development based on its effectiveness. (247) (p.157)

At the same time, the wider definition of science that is inclusive of multiple perspectives allows for the acceptance of CM outside of more stringent, and socially imposed, scientific standards, so that other forms of knowledge, such as those found in acupuncture and herbalism, are given legitimate status. Different methods and approaches may be employed in obtaining insights upon the object under investigation. According to Liu,

> In the multiple view of science, all kinds of "local" science can be co-existing while keeping their own identity. More importantly, in many cases, they may overlap partially and only partially with each other. Accordingly, by considering the mainstream Western science and non-mainstream but culturally-related sciences (such as Western medicine, Chinese medicine and other kinds of medicine) altogether, one reaches a picture of multiple sciences." (247)(p. 161)

According to Fan (14), whether or not CM is a science depends upon the definition of science that is used. Fan states,

> "if we use a broad definition so as to mark every empirical inquiry as science, then traditional Chinese medicine certainly meets the definition. However, if we take modern scientific medicine as the unique model of scientific medicine, traditional Chinese medicine is not a science." (14)

Again we find ourselves in the problem of being able to define an absolute truth, in terms of medicine and in the appeal science. The standards that we accept as science are what therefore come into question.

It is important to note at this point that CM is not theoretically anti-science. Evidence and its basis in epistemology is just as fundamental to CM as it is to WM, it is just that the form and content of the data that differ. CM does not claim that this is the only or highest form of valid

evidence to be used in clinical decision making. Rather, knowledge derived via the scientific process is incorporated into clinical deliberations within a framework that also includes, as previously discussed, a number of other forms of evidence also, such as practitioner-observed signs and patient-reported symptoms, environmental, familial, and social factors, and the practitioner's interpretation of these within the CM theoretical frame. All of this is carried out with the intention of facilitating healing within the individual patient, and despite the recent value placed on population level data, this is of course the case with WM also.

3.2 Comparative accounts

While a complete history of the medical realm is clearly outside the scope of this thesis, it is useful to compare the development of knowledge within medical traditions – and some of their more fundamental similarities and differences. The medical traditions of Galen and Chinese medicine may be seen to be similar in their use of written texts in order to communicate theoretical and clinical knowledge of their healing methods. This reliance on written texts created healers who were scholars as well as experienced clinicians interacting with the world. But from this, a difference may be found in the importance of the knowledge.

In the past, knowledge in CM may be seen to have been accorded importance by reference to the person who knows it, while in ancient Greece knowledge was analysed according to the ability of the person making the claim to justify their knowledge (Bates, p.3). Either way, however, we can see the authority of the speaker is essential to the acceptance of claims. It is this epistemological basis that provides the methodology for communication and participation of knowledge in our Western culture. The CM knowing does not require the justification of wisdom in such standard terms, and includes the participant in communication of the experience, not the experience alone. This difference between emphasis on the 'knower' and the 'known' is significant in our understanding of both systems. Indeed, these differences reflect the ways of thinking about the world, humanity and the universe that the societies from which these traditions arose differed. This does not mean to say that elements of both were not found in the other, as for example, Bates points out that the Galenic texts became revered in their own right and as the basis for Hippocratic knowledge. And this also does not consider a further type of knowledge – that of a practical nature, in which we may be less concerned with justification. While in the Middle Ages, medical authors such as Aristotle and Galen were revered, the content of their writing was debated.

Another view of the beginnings of the epistemic organisation underlying medicine is found with Unschuld (27). He proposes that the systemisation of knowledge arose in ancient China as

a result of the political and social environment at the time. In this we can see the interrelatedness between the development of ideas and the external nexus for their acceptance and subsequent application. Unschuld (27) argues that the development of ideas is intimately tied to the acceptance of evidence and so the construction of knowledge can be seen as a process involving multiple contributing factors and people.

It is generally accepted that WM currently conceptualises its medical validity in the experimental lexicon of the RCT, and that other forms of medicine, including CM, have not been considered to adequately meet these conditions. It should be noted that WM has not met these conditions yet either, with the effectiveness of 50% of medical treatments still unknown (248). The comparison of medical validity between Western medicine and Chinese medicine is demonstrably problematic – particularly in the debates on evidentiary 'paradigms', the clinical application of RCTs, and treatment effectiveness. Fabrega (249) argues that this disagreement is a result of the cultural environment and conditions, the 'medical ecologies' under which each medicine has emerged. Continuing in the dialectic tradition of comparing one to the other, Fabrega (249), notes that both medicines constructed health and sickness under a wider cosmology and natural understandings of the body that included not only the macrocosm of society, but also the respective societies philosophical and theological perspectives regarding action and morality. Other similarities between WM and CM include a functional understanding of the body, including processes and passages that are capable of malady, that albeit do differ in detail and theory. Also, both Western and Chinese medicine created impressive *material medica* and used a wide variety of complex therapeutic procedures, that nonetheless differed in content and technique. Fabrega also argues that the medicine of China "cannot be clearly separated from spirituality, religion, morality, and natural philosophy", (249) (p.397), and that this was initially the case for Western medicine. Earlier in this chapter we noted that this may still be the case for WM also.

However, Fabrega (249) argues that while in WM, "an objective medical language defines disease and validates treatment ... in the Eastern traditions, conditions of disease are culturally constituted – framed in a personalised idiom having wide-ranging symbolic meanings." (p. 396). As we saw in the previous chapter, Foucault argued that the language in WM is also essentially culturally constructed by participating doctors and patients. EBM, however, has attempted to set aside this insight into the nature of medicine (250). The superficial disparity that results from this distinction means that direct comparison between WM and CAM's such as CM are therefore very difficult.

Fabrega (249) argues that medical validity in ancient China was created through ongoing scholarly debate, with consistent examination of the developing theories and practices. Mastery in knowledge and practice was cultivated and embedded within the cultural, moral and spiritual values of the society. Systems of practical knowledge, such as Zhang Zhong Zhing's *Shang Han Lun*, or Treatise on Cold Disorders, were developed that provided categorical accounts of symptoms with their corresponding patterns and treatments that were descriptive, functional, and yet flexible (249). The diverse, local practice of folk medicine was linked to more theoretical, scholarly accounts of medicine in a supposedly mutual relationship that highlighted the plurality recently elaborated in current and historical accounts of medicine. Medical efficacy in CM was, according to Fabrega (249) developed through the continual interaction between practice and theory, and medical validity was ultimately determined through cultural acceptance. Likewise, WM developed according to a complex interplay of many contributing factors. However, Fabrega (249) is firm in his conviction that the attempts by WM to establish validity by removing ideas of spirituality, religion and morality were successful.

As this thesis is attempting to demonstrate, this may not necessarily be the case. Commentators argue that despite the uneasiness between CM and WM that exists over their differences, ".. neither TCM nor WM has sufficient epistemological resources to prevail in a battle as to the status of truth and which form of medicine is better. The reality is, in practice, the two can be complementary, and do co-exist." (45). Comparative accounts between CM and WM appear uneasy, however through examination upon the differences and overlap between these two systems we may improve our understanding of both, and the area in between. An example of an area providing a rich ground for reflection is the western phenomenon known as the "placebo effect".

3.3 The concept of 'the placebo effect'

When looking at the validity of Western medicine, randomised controlled trials (RCT) and their systematic reviews have recently been given centre stage. We have also seen that Chinese medicine and other CAMs are attempting to establish validity via EBM methods, and particularly the RCT. As the supposed 'gold standard', there has become an ever increasing focus on control over the dark-side to this method of validation – "the placebo effect". We will now consider this concept and its implications for the validity not only of WM, but also CM. In this section I will provide a definition and brief overview of the idea of the placebo within WM and CM research. Interpretations of meaning and effects on claims of medical validity, and

subsequent implications for policy and regulation decisions, with respect to WM and CM will be considered. Of all of the current issues in Western medicine, I will contend that this is where we may see overlap and opportunity in the comparison with CM.

The term 'placebo' is derived from the Latin, 'I shall please', and emerged in medicine in the 18th Century (251). Simple definitions of the placebo effect, and the related "nocebo" effect, are not easy to come by. When it comes to a definition of placebo effects in medicine a number of recent analyses can be found. Finniss and co-authors state, "Generally, a placebo is seen as an inert substance or procedure and the placebo effect (or response) is something that follows administration of a placebo" (251). Of course, an inert substance being able to produce an effect is pointed out by many as illogical (251, 252). Nonetheless, attempts have been made to further define the placebo and the placebo effect, such as that by Ernst (11) who in his review attempts to differentiate between the 'true' and 'perceived' placebo effects. Almost all commentators conclude that more research must be done to understand this phenomenon better, as well as how it may be more appropriately conceptualised in research and clinical care (11, 251, 253).

From the development of the RCT and its use of a placebo or control group, we have come to understand the concept of the placebo as being "inert" in nature. However, the placebo effect in a clinical trial may be attributed to a number of factors other than the lack of treatment, such as, "the natural course of disease, fluctuations in symptoms, regression to the mean, response bias with respect to patient reporting of subjective symptoms, or other concurrent treatments" (251). Attempts have been made to clarify definitions of the 'placebo' from 'the placebo effect' and establish the difference between the placebo effect in clinical trials from clinical practice (11). Moerman and Jonas (10), have suggested that the placebo effect be reconceptualised as the "meaning response", in order to differentiate between the inert nature of a placebo, and the many and varied ways in which we construct meaning around and within the clinical encounter, and the effects that these meanings have. Likewise, further consideration upon the nocebo effect has been taking place, and are conceptualised by Arnold, Finniss and Kerridge (254), as "an agent whose administration results in a noxious or detrimental effect on health that cannot be attributed to the properties of the substance or intervention itself". Seen as factors other than the intervention or therapy, these effects influence the outcomes and perceptions of treatment.

Increased interest in this area in recent years thanks to a number of interesting research findings has led to discussion about the underlying mechanisms and the meaning of the

placebo and placebo effects (11, 251, 253). From these and other reviews, we can now see that the placebo and nocebo effects have measureable physiological and neurological correlates that may be harnessed to improve the benefits of care provided to patients. Drawing on some of these recent findings, Horowitz (253) concludes that the placebo effect is a 'measurable, albeit complex phenomenon with physiologic correlates that have clinical relevance' (p.134). Arnold, Finniss and Kerridge (254) in their review of the placebo and nocebo effects, characterise the placebo and nocebo effects as 'wide-ranging' and "embedded in the very fabric of therapeutic relationships and are both a manifestation and outcome of the rituals that characterise clinical practice". As such, these effects appear to highlight the complexity of the practitioner-patient relationship and the multiple factors which contribute and compose the therapeutic outcome. This 'psychosocial' context can include "individual patient and clinician factors, and the interaction between the patient, clinician, and treatment environment" (251)(p. 687).

When asked if they had used a placebo in clinical practice, 45% of physicians surveyed said that they had (18). While there was widespread disagreement on the definition and mechanism of a placebo, 96% of the respondents said they believed "placebos have therapeutic effects" and 95% believed that "the placebo effect is real" (18). The researchers concluded that the participants they studied believed in the mind-body connection and that the use of placebos needs to be more recognised and discussed. Another survey done in Canada found that psychiatrists were more likely to agree that placebos had therapeutic effects than other physicians (60% compared with less than 45%) (255). This study also found that psychiatrists were significantly more likely to prescribe sub-therapeutic doses than other specialist physicians (255). The use of sub-therapeutic doses in clinical practice as an effective therapeutic treatment may warrant further exploration and has been discussed in other areas as providing a potential intersection between WM pharmacology and CAM practices, potentially improving the evidence base for some CAMs (256).

Concern has been raised about the ethical use of placebos and the conscious utilisation of the placebo effect in clinical care. Primarily this relates to the use of deception, as this is seen as contradictory to the ethical values of providing benefit, while maintaining patient autonomy, which underlies the notions of medical care and informed consent. It can be argued that as the contextual factors involved in the placebo effect abound in the clinical environment (such as the patient-practitioner interaction, the specific nature of the treatment and the way it is delivered), it is therefore necessarily beneficial to enable these in order to produce better

patient outcomes (251). Outside of the ethics of using a placebo in research, the question of utilising the placebo effect in clinical practice, by prescribing or performing an intervention not shown to work seems less easy to answer. With the potential to erode the foundation of trust in the clinical relationship, "clinicians often prescribe various active treatments with the main intent of promoting a placebo response or complying with the wishes of the patient" (251)(p. 692). A lack of disclosure is often seen as tantamount to deception, despite the fact that full disclosure of all of the actual and potential benefits and risks of care is understood as impossible to attain in clinical practice. Clinicians may be argued to play a large role in the placebo effect, for they are the main factor providing information and therefore meaning, to their patients (257). A doctor presenting these risks and benefits in a way that informs the patient while attempting to influence positive expectations about the potential benefits of the treatment arguably outweighs concerns about deception (258). Furthermore, recent research has found that the non-deceptive use of a placebo still produces quantifiable beneficial effects (259), suggesting that the administration of placebos in clinical care may be ethically justifiable (260).

The interplay between culture and medicine is repeatedly demonstrable and the placebo effect may provide an opportunity to examine this area further. One author (249) suggests that developments in the field of evolutionary biology may help us to reframe the placebo effect and its place in our construction of medical validity. Fabrega argues that the rise of WM has led to significant shifts in our cultural understanding of medicine and health, and that this should be taken into account when we evaluate any medicine. The use of the RCT has essentially de-identified the individual medical users' experience in its process, and dis-owned their anxieties, fears, and spirituality. As a result of the changing views on medicine and increasing availability of information, alternative medicines, such as CM, that are seen to encompass these other aspects of the experience of medicine and illness, have increased and awareness of them has increased. Fabrega (249) defines a 'placebo response' as involving,

> ..activation of the central nervous system brought about by powerful expectations linked to cultural conceptions and values that extend beyond the individual. Culture is spread across shared networks filled with meaning that connect individuals to their total (i.e. behavioural) environment, vitalise and reinforce their sense of wellness, and provide support through an extended worldview context. (249) (p. 408)

Not only was this perspective unrealised at the time RCTs became the standard for establishing medical validity but cultural beliefs are also now recognised to play a significant role in the

expectations, and cognitions that are part of the placebo responses – both negative and positive. Looking to evolutionary adaptation, it can be suggested that features of the placebo response, "mechanisms designed to neutralise or overcome the effects of disease, such as processes regulating physiological, hormonal, and immunological responses," may be a part of natural selection process, and this should be included in considerations of the placebo response (249) (p. 409). These ideas might allow us to more fully conceptualise the role of culture in medicine and its validity, and perhaps more fairly determine the medical validity of other systems such as CM who do not share the same cultural assumptions as WM and its RCT.

CM is more than just an episteme, but incorporates ontological aspects of being and knowing into its worldview and practice, and this is part of what makes it not easily reducible in mechanistic terms. This is perhaps what also reminisces CM to the issue of the placebo effect in WM, where participant's ways of being in the world rear their heads and will not be so easily rendered as extraneous either. It is these interconnected, inter-relational aspects of life and healing that contribute to the meaningfulness of our experience. CM offers a systematic, internally-sound method for approaching medical care that includes the social, cultural, environmental, personal, mental, spiritual, and physical aspects of life. From the point of view of CM, the placebo is rendered obsolete. There is no such phenomenon as the placebo in the clinical practice of CM, for that which falls under its domain is included in the clinical consultation and deliberations. And as we are starting to see, these aspects are and must be acknowledged as being included in the WM clinical setting also. There is no avoiding the embedded and complex nature of life.

3.4 Evidence in clinical practice

The epistemological problems uncovered in our presentation of the history of evidence in medicine are highlighted when we see their emergence in the daily practice and research. One of the current complaints levelled at Western medicine is that of a 'depersonalisation' of patients in their experience of medicine and healing (74). The reinterpretation of the world through scientific eyes, led to a re-examination of what was previously considered primary, knowable substance. No longer was what *appeared* existent in and of itself, outside of the mind – scientific techniques and interpretation assumed a significant and ascendant position over other forms of knowing. With the alignment of Western medicine to the scientific episteme, the subsequent value-laden emphasis on prediction, probability and reason disrupted the equipoise between patient and practitioner. The body of the patient became the 'object' of the practitioner and his or her technical intervention. The symptoms, experiences

and feelings of the patient were downgraded when compared to the scientific objectivity provided by the practitioner, and the specialised, medical discourse that the patient did not share (261).

The rise of ethics in Western medicine may be seen as a response to this 'depersonalisation' and disparity of power within it. We can see this in recent postmodern interpretations, such as from hermeneutics, which have attempted to re-conceptualise individual persons and their places within Western medicine. Arguing that there is a place for the knowledge of both the practitioner and the patient, Redding (261) espouses a hermeneutical practice of medicine that allows for the specialised science of the practitioner as well as the meaningful interpretations of the patient. He suggests that the pluralistic view of knowledge offered by the philosopher Gadamer gives Western medicine an ethical basis for practice, as no one form of knowledge can transcend or definitively assess another. This provides a model for communication between practitioner and patient in which each interprets the other in a dialogue centred around the shared object of the disease, and in which neither is more 'right' than the other, but both have their place:

> The "fact" of the disease is not something totally knowable from any single point of view. There is always a side to the body and its states which escapes the concepts brought from either lived "first-person" or scientific "third-person" accounts. The sick body is something that exists within an open-ended and dialogical therapeutic interaction in which neither point of view can claim ultimate authority. (261)(p. 99)

There is a growing body of opinion that emphasises the complex and uncertain nature of knowledge and its application in clinical practice. In the field of psychotherapy the mastery of the therapist is seen by some to be an essential component of clinical effectiveness (262). Therapeutic mastery is defined here as being cultivated through high levels of self-awareness and personal development, as well as the demonstration of wisdom – in the search for certainty despite the uncertainty of the world, sickness, and the clinical encounter. Skovholt and Starkey (262) summarise,

> Three epistemological sources – practitioner experience, personal life, and academic research- are vital to the practitioner. [-] The practitioner culture suggests that reflection on the craft is the most important source of influence. The academic research culture suggests that science is the best source of knowledge for practice.

> Candid discussions with practitioners, and a perusal of their writings, shows that personal life is also a rich source of guidance and knowledge. (262) (p.126)

While disagreement exists about the relative importance of each of these sources of knowledge, and each can be seen to contribute a rich field of information, each perspective must be incorporated in the endeavour to understand the complexity of each client. To Skovholt and Starkey (262), "All three strong legs (professional experience, academic research, and personal life) of the practitioner stool provide a sense of strength and balance." (p. 127). They each contribute to a whole that, when taken together, offer a knowledge base that may more strongly guide practitioners in the uncertain realities of the complex clinical situation, and this may well apply to WM and CM also.

EBM advocates have argued that there is a place for knowledge that comes from clinical experience. However, as we have seen this is far less valued than other forms of evidence. A central claim of the EBM movement has been the devaluation of knowledge that has been passed down through the generations, or acquired over a lifetime of experience. This might be otherwise understood as wisdom. However, it appears on initial reflection that to listen to what others have done before and take this knowledge into account is more valuable than to weigh more heavily singular or recent knowledge obtained from results of trials, which change from trial to trial. A systematic review found that there was a significant correlation between positive results and publication, indicating that there is a strong publication and outcome bias in the medical literature (263). There is large amount of waste in the production of research evidence, resulting from factors including poor design, failure to publish in a timely manner if at all, and biased or unusable research reports (264). These discrepancies and the large amount of individual studies that have been and are being undertaken (265) have led to an emphasis on evaluating available evidence as a whole, and not just relying on the results of individual studies (266). The cumulative effect of knowledge does have value, and we can see this in the meta-analyses and systematic reviews that are high on the EBM scale of evidence. Systematic reviews of meta-analyses are now even being recommended in order to counter these and other limitations to research (267). Yet this is exactly why Chinese medicine is valuable, and why experience practitioners are given the title of professional – because in the systematic approach to medicine is a meta-analysis of evidence and its application, results and subsequent innovation. These forms of knowing are complex and difficult to quantify, but in their cumulative nature they are valuable, and may therefore be compared to wisdom that should be accepted.

The myth of objectivity has been highlighted by many deconstructive and postmodern thinkers, including Husserl, Heidegger, and others. The practical inability to separate oneself from any statement about the world, including scientific statements, demands a medicine that acknowledges the person and their position in making any claim. The idea of reflective practice as a conceptual framework for the practitioner of medicine is another extension of this approach to medicine. The conceptualisation of medical knowledge based on 'reflective practice' may be more open to the CM approach to medical practice. (268), offers a new hierarchy of evidence that places *personal knowledge* ('know yourself, know your individual patient') as most important, and then *experiential knowledge* ('know from your own experience what has happened in similar cases') and *propositional knowledge* ('know from research what might happen in similar cases, know from research what might happen in the general case') as second and third in importance for nurse practitioners. Based on Schon's (269) concept of reflection and its implications for practice, Rolfe highlights that the EBM approach has devalued this knowledge to the detriment of nursing practice, and calls for reflective practitioners to argue against this. He offers seven tenets from which a new paradigm may be established. These are:

> 1. the first principle of the new paradigm is that it is incommensurate with the dominant paradigm of technical rationality; 2. the new paradigm should focus primarily on the development of practice rather than theory; 3. it follows that if the new paradigm places the development of practice above the development of theory, then contextual knowledge that arises from practice will be valued above abstract theoretical knowledge that is applied to practice; 4. in a paradigm that values contextual knowledge generated from scientific research, it follows that the practitioner will have a higher status than the theorist and researcher; 5. it therefore follows that the academic will take on a very different role within the new paradigm; 6. the new paradigm clearly has major implications for the way in which pre-registration nurse education is organised; 7. and finally, the new paradigm must allow not only for Schon's notion of reflection-on-action, that is reflection after the event, but also reflection-in-action, reflection during the event. (268)

This concept of reflective practice cannot be measured according to EBM standards, as it has a separate set of criteria from which it is considered. EBM definitions of what counts as knowledge, what knowledge is most valued, and how knowledge is generated, place forms of knowledge such as that derived from reflection as least important. The value of experiential,

propositional knowledge in the expertise of a practitioner and the challenge to technical rationality as emphasised by Schon was unsuccessfully integrated into the mainstream medical paradigm, and can be argued to have led to the gulf between theory and practice now experienced by practitioners and patients. This discussion highlights the thread between discourse and experience, brought into repeated relief throughout the conceptual examination of CM and WM in this thesis.

3.5 Conclusion

In this chapter the development and the conceptualisation of evidence in WM has been examined – in the epistemological structures surrounding it and in the recent propagation of EBM ideals. A number of differences and issues within these structures and also a number of areas of potential intersection with the other practical episteme, CM, have also been explored in this chapter. These areas of similarity are not as simple as they may appear, and it may be suggested that they largely revolve around the nature of practice and the socio-cultural features embedded within and around the application of evidence in the clinical setting, in the universal attempt to actualise healing. This contextual and meaning-driven field is acutely exposed in the research arena, where the scientific method conspicuously spotlights the complex nature of any medical endeavour. In the next chapter this area of exploration will be pursued even further as the methodological and ethical domain between quantitative and qualitative research methods, are considered.

Part Two

Chapter 4: Excursus – Contextualising the use of qualitative and quantitative methodologies in Chinese Medicine: epistemological and ethical issues

This chapter takes into consideration the use and intersections between quantitative and qualitative methods in research. While there is some overlap with concepts discussed in other chapters, the theoretical exposition and exploration contained herein will set the stage for the *CM in Australia study* that forms the second major part of this work, the results and discussion of which are elucidated in the remaining chapters. This chapter was published as a paper in the Australian Journal of Acupuncture and Chinese Medicine Volume 7, Issue 12 (270).

Declaration for Thesis Chapter 4

Declaration by candidate

In the case of Chapter 4, the nature and extent of my contribution to the work was the following:

Nature of contribution	**Extent of contribution (%)**
Writing	90%

The following co-authors contributed to the work. If co-authors are students at Monash University, the extent of their contribution in percentage terms must be stated:

Name	**Nature of contribution**	**Extent of contribution (%) for student co-authors only**
Prof Paul Komesaroff	Writing and editing	

The undersigned hereby certify that the above declaration correctly reflects the nature and extent of the candidate's and co-authors' contributions to this work*.

Candidate's Signature		**Date**
Main Supervisor's Signature		**Date**

Abstract

Research into the effects of medical interventions is one of the oldest traditions of any medicine, as is the study of its ethical dimension. In this paper, we briefly describe and recount the history of both quantitative and qualitative methods in clinical research. We discuss key theoretical, methodological and practical features of both methodological perspectives and consider some of the central ideas of medical ethics. We sketch a theory of the relationship between the quantitative and qualitative as essentially complementary and interdependent. The theory is illustrated by reference to the placebo effect and a research 'case study' from within the Chinese medicine community. We conclude that despite the challenges, combined research methodologies in Chinese medicine offer both scientific and ethical benefits.

Evidence in medicine: background

Concepts of knowledge and evidence evolve over time and sometimes generate vigorous controversy. *Quantitative research* encompasses a wide range of methods and techniques. In the western medical and Chinese medicine (CM), setting key features include: the quantification of phenomena arising in experimental settings, in which several variables are measured while specified conditions are controlled; and the use of often complex statistical methods in order to derive meaning from the measured results (271). The use of such an approach to assess the efficacy and effectiveness of particular techniques and treatments is now referred to as "evidence based medicine" (EBM). The linking of clinical decision making with systematically compiled data is a rapidly evolving component of medicine that is widely regarded as central to the current practice of western medicine. Its rise to recent importance is due to developments in the field of epidemiology since the 1950s and the formation of the EBM working group in 1992, which argued that the information of most value for clinical medicine is that derived from large scale, appropriately controlled population studies.

Along with the success of EBM, awareness developed of the importance of the patient experience in both clinical practice and research and this led to an increasing utilisation of qualitative research methods. The latter had first been developed alongside quantitative population studies in the middle of last century, as researchers began attempting to investigate, and philosophers grappled to understand, the phenomenology of illness and caring. Philosophical insights into the nature of perception and judgment were applied in the development of both quantitative and qualitative approaches, especially those elements of the philosophy of Immanuel Kant that dealt with the nature of knowledge and our ways of thinking

about things, not just our observation or experience, and how they contributed to the generation of understanding of the world Kant (164). The recognition of interpretation as inherent in the concepts of knowledge and evidence is consistent with classical epistemologies and emphasises the unexceptional nature of qualitative knowledge within the Western framework of reason.

Qualitative research, which seeks to fill the epistemological gaps within quantitative research, encompasses a wide range of philosophical perspectives, methodologies and techniques. Despite this heterogeneity, there are several common key features that may help elucidate the nature of the field. These include: an emphasis on a continuity between theoretical frameworks and research methods; recognition of the importance of participants' frames of reference and of close contact between participants and researchers in the data collection phase, with the ability to explore emerging questions and issues that arise; and rich and copious data that are analysed using techniques that facilitate the description of emerging concepts and patterns.

A number of theoretical standpoints, with their own methodologies, can be employed under the rubric of qualitative research, including, among others, ethnography, phenomenology, grounded theory, narrative study, feminism, and postmodernism[3]. These different approaches may be distinguished by their use and interpretation of one or more of the following data collection techniques: observation, one to one interviews, group discussions, and examination of written, visual, audio, historical and documentary data. A unifying feature is that all qualitative research provides "an in-depth and interpreted understanding of the social world of research participants by learning about their social and material circumstances, their experiences, perspectives and histories" (44).

Challenges in the use of pure methodologies

The relationship between the quantitative and qualitative research domains is complex. On the one hand, the quantitative is embedded within some qualitative research methods, such as the identification of themes in thematic analysis, while conversely, the qualitative is observable in the quantitative, such as in the development of descriptive statistics (44). The two approaches stand in an interdependent, overlapping and dialectical relationship, with the quantitative giving rise to hypotheses which are in turn extended and made meaningful by the qualitative interpretations generated from the results. Similarly, in the deployment of

statistical methodologies the significance obtained from numbers, initially a quantitative result, gives rise to a qualitative process of interpretation, and consideration of relevant social implications. This qualitative methodology may then generate further quantitative hypotheses to be tested, and so on. This process of making sense between the quantitative and qualitative domains, and vice versa, is itself subject to a variety of interpretations and provides a rich field of exploration.

An appreciation of the depth and complexity of experience is one of the most important features of qualitative research. The idea that individuals come from environments that both form and are formed by them (168) has been largely absent from the ideology of quantitative research in medicine since its identification with science (272) and the promotion of the medical gaze in the last century (74). The objectivist perspective favoured by medicine places emphasis on the role of a particular kind of observer who is separate from the conceptual conditions of knowledge. The challenge with this approach, however, is that there is still a subject and object, which thereby occupy an uncertain status in the prevailing paradigm. The denial of the role and influence of the researcher, the research environment, financial and competing interests, and the role of practitioners in fixing both the questions raised within the clinical encounter and answers that are considered to be valid, have led to researcher effects and bias that continue to play significant roles in the outcomes of research, let alone in the formation of the research questions themselves. Some of these controversies are exemplified in contemporary discussions about the nature and role of the so-called “placebo effect”. It may be said that the attempt to extract not only the practitioners, but also the patients themselves, from the practice of medicine, is the source of the opacity of the nature of the placebo from the viewpoint of the quantitative field.

This question of the placebo effect – what it is, how we account for it – is at present the subject of vigorous investigation (10, 48, 255), although no authoritative consensus on its underlying mechanisms is yet available (11, 273). The ethical appropriateness of including a group that is administered a placebo in clinical research has long been questioned and remains a topic of intense debate (251, 258). What can be said, however, is that the “effect” refers to a range of behaviours, attitudes and physiological and psychological responses that cannot be described in mechanistic terms but can nonetheless be broadly encompassed as a general numerical effect on measurable variables. The placebo effect does not exist in the qualitative realm of enquiry but is ever-present in quantitative research as an inextinguishable trace of the qualitative world.

Recognition of the problems raised by the exclusion of individual patients from active roles in medical research has given rise to a number of compensatory innovative responses, such as the use of increasingly complex trial designs, increased attention to exclusion characteristics, adjustments to outcome measures, ever-increasing conditions required by ethics committee, and the elaboration of refined methodologies such as comparative effectiveness research. In acupuncture research, the use of protocols such as CONSORT and STRICTA, are being encouraged (274). Pragmatic trial design is an example of another response to the challenge of accounting for individual patient and practitioner effects (275). That the importance of the placebo has been built into the conventions of quantitative medical research suggests an increasing anxiety associated with the exclusion of qualitative knowledge. This anxiety, qualitative in very nature, is generated by, and at the limits of, the quantitative paradigm.

In clinical medicine itself, approaches are emerging that also renew the emphasis on the human experience of illness and caring. These include personalised medicine, individualised care, integrative medicine, and patient centred care, all of which have encouraged the conduct of qualitative studies examining the patient viewpoint and understanding (113, 276). Qualitative studies have investigated practitioner and student attitudes (122, 221, 277), including awareness of and attitudes towards ethical issues.

Ethics in medical research

Ethical issues are at the centre of both clinical and research practice. Both fields of activity require complex negotiations involving values, preferences, opinions and beliefs, in different and sometimes changing social and cultural environments. Supposed “principles” of medical ethics – such as the right to autonomy or self-rule and the duty to act in the best interests of patients or research participants – may have different weights and significance depending on the context. For example, a patient’s “right to choose” may be overridden in a variety of circumstances, such as those involving decisions about access to, and the judicious distribution of, resources, or they may be compromised or attenuated by lack of time, competing interests or other influences. Voluntary and mandatory codes of practice can enhance awareness of the importance of ethical considerations and guide the behaviour of both clinicians and researchers. In the field of research the Australian *National Statement on Ethical Conduct in Human Research* (278) provides a broad framework for ethical discourse which places emphasis on the values of research merit and integrity, justice, beneficence, and respect. For example, the statement specifies that for research to be ethically acceptable the potential benefits should outweigh the likely harmful outcomes and that, except in clearly defined

circumstances, the consent of the participants must be freely obtained. Adherence to such ethical values and principles is not a secondary or supplementary aspect of medical research but is now recognised to stand at its very core.

The two clusters of methodologies share common ethical issues, such as respect for participants and recognition of the importance of consent and privacy. However, they also raise their own distinctive questions. In the quantitative realm, for example, ethical questions generally refer to specific instrumental or operational aspects of a study, especially questions about techniques and protocols. In the qualitative field, ethical issues arise from the deconstructed, self-reflexive nature of the researcher and the endeavour to engage in evolving, meaning-generative relationships with participants and their field of experience as, for example, in participatory research in communities. In quantitative research the fundamental ethical requirement is to demonstrate that the dignity and rights of the individuals involved are being upheld. Where the approach taken is a qualitative one, the key issue is to recognise and respect the experiences of the participants and to acknowledge the meaning generating capacity of the relationships between them and researchers.

The methodological diversity underlying qualitative research represents a response to the complexity of the processes just referred to of meaning generation in relation to personal experience. Quantitative research is inherently objectivist, in the sense of presupposing a radical independence between the subject and object of knowledge. By contrast, qualitative methodologies draw attention to the dependence of knowledge and truth on the process of observation itself and the cultural and theoretical context within it occurs. Some qualitative frameworks, such as those of feminism and postmodernism, explicitly include the observer as a key variable. However, these are the exception, and many other qualitative approaches retain a commitment to the separation of the research process from that of action and change, thereby preserving fundamental features of the dominant epistemological paradigm of medical research.

The ethical discourses about quantitative research have developed out of this tension between the objectivism of science and dialogue between researchers and research participants: that is, they are a response to the inherently non-reflexive nature of quantitative thinking. In the latter, the removal of the agency of the research participant at the level of knowledge acquisition requires its re-insertion in the form of supplementary “principles” of ethics, such as the principles of respect, beneficence and justice. As a result of its evolution as an extension of the quantitative paradigm which nonetheless preserves the basic structure of objectivistic

knowledge, qualitative research seeks to follow the same ethical principles, even if the ways in which they are realised sometimes differs: for example, in the more active, participatory versions of qualitative methodologies the distinction between "researcher" and "research participant" becomes somewhat blurred, thereby changing the nature of conversations about consent, risk etc.

The ideas and concepts that are subject to the processes of measurement, including the hypotheses that are tested, clearly precede quantitative assessments of them; qualitative thinking is in this respect more fundamental than quantitative thinking. Furthermore, because not all aspects of experience can be expressed quantitatively there are irreducible residues of qualitative experience that perdure within the quantitative domain.

Case study

The above points can be illustrated by a study currently being undertaken by the authors which utilises quantitative and qualitative methodologies to characterise the attitudes, beliefs and behaviours of CM practitioners in Australia. The overall aim of the study intends to provide a comprehensive description of CM practice which conveys both the large scale cultural structures and local values and attitudes of individual practitioners.[1] Quantitative data obtained from a nationwide survey are being analysed using descriptive statistics in the form of frequencies and percentages, to provide an overall quantitative description of eight domains within CM practice in Australia: demographics, clinical practice; evidence; registration; education; professional development; professional associations; and the future of Chinese medicine in Australia. In addition to this, qualitative, semi-structured interviews are being conducted to provide a deeper characterisation of CM practitioner and key stakeholder attitudes and values. Data from the interviews and qualitative survey responses are being analysed using established qualitative techniques, including thematic analysis. In the research design the qualitative and quantitative data complement each other: the qualitative data are analysed for recurring topics and themes, which are used to generate quantitative hypotheses, while conversely, the quantitative information obtained from a national survey is tested and interpreted in the medium of qualitative dialogues. The results and discussions based on the findings will be published in upcoming journal articles. It is hoped that knowledge of the

[1] For further discussion of the rationale and methods used to undertake this research please see Chapters 1, 5 and 6.

clinical and cultural dynamics of CM will contribute to the development of both clinical practice and policy recommendations.

Each methodology clearly provides its own insights and evokes its own theoretical interpretations. The combination of methodologies, however, also raises some contentious issues. These include that of population sampling, which is understood differently by the two perspectives. The quantitative paradigm demands that sufficiently large numbers be included to constitute a "representative" sample, while the qualitative one focuses not on statistical arguments but on the inclusion of all relevant substantive demographic factors. The contrasting approaches go to the heart of the differences between the two methodological perspectives: quantitative research is concerned with abstract representations of phenomena across whole populations while qualitative approaches seek to provide inventories of the full range of concrete variables that manifest themselves in the complex and differentiated array of social lifeworlds. As a descriptive study, our project seeks to pierce the qualitative unknown by investigating a population that has not hitherto been investigated in this manner, in spite of previous limited workforce studies (4, 25). It is our hope that the use of both quantitative and qualitative methodologies will allow the complex array of ethical, social and cultural factors to be identified so that effective policies and educational strategies can be developed.

What does this mean for Chinese medicine?

Like other social practices, CM embraces a complex array of discourses, techniques and ethical standpoints. It has its own body of knowledge and standards of truth and validity, its own professional networks, and its own approaches to clinical praxis and education. The current research project has posed the question of the specific nature of the practitioner-patient relationship in CM. The encounter between practitioner and patient is the central dynamic force underlying all clinical practice, including that of WM, and the characterisation of a particular practice must seek to identify any features that are unique to or distinctive of it. Our research suggests that CM can be distinguished precisely in these terms, by the quest of the practitioner and patient collectively and jointly to re-discover wellness, that is, through the distinctive ethical project underlying CM.

It may be argued that one of the defining principles of both scientific research and clinical medicine is the proliferation of viewpoints, of the fostering of competing and evolving theories of phenomena and experience which can be tested in varying degrees by experiment. The

fecundity of ideas and concepts in fact emphasises most trenchantly the crucial role of qualitative ways of thought, which resist limiting the plenum of creative possibilities to a single standard of judgement. The qualitative domain allows us to consider and engage actively with participants' views and experiences about their sickness and healing, which are infinitely variable. The conversations that may thereby be generated cannot be reduced to mere reporting, but invariably evoke ethical engagements, as participants and researchers together seek to deepen their understanding of the research question, the research activity, and their experience of the research topic. Ideally, participants may feel empowered to engage with the research process as active subjects. They may feel more included in the research experience, in the investigation of their experience, and in the reporting of the findings and subsequent decisions.

CM practitioners may understand that these are some of the reasons their patients may choose to participate and prosper within the CM framework. Research in CM involves a level of complexity inherent in an internally reflexive system. We suggest that research in CM is not only well suited to qualitative methodologies, but that the inclusion of such methodologies in studies investigating the use and effectiveness of CM is essential not only to enhance understanding of CM but also to ensure its ethical conduct.

Part Three

Chapter 5: Chinese medicine in Australia – A national survey

The aim of this part of the project is to characterise the current clinical dynamics and cultural structure of Chinese medicine practice in Australia. More specifically, this includes exploring participants descriptions and attitudes in eight key areas – demographics, clinical practice, evidence, registration, education, professional development, professional associations, and the future of Chinese medicine in Australia. By seeking out the attitudes and views of individual Chinese medicine practitioners and key stakeholders, it is hoped that this consultation will contribute to the development of Chinese medicine in Australia at this time, in a manner that is methodologically rigorous and consistent with the fundamental Chinese medicinal principles of inclusion and holism. The final aim of this project is to contribute to the ongoing formation of Chinese medicine as a valid healthcare profession in Australia, through the development of relevant and effective framework and policy recommendations.

5.1 Method

Despite many well recognised limitations, the use of surveys is well accepted and employed in almost all areas of human research. As a tool that relies largely on self-reports and voluntary responses, it is well-known that these features both enable and limit the researcher in investigating and describing the respective population under examination. However, it is the ethical and inclusive aspects to this method of enquiring into the self-identified features of a group of people that informed the decision to develop and use a survey in order to attempt to describe the CM practitioner population in Australia, using both quantitative and qualitative approaches, for the first time.

The CM in Australia survey questions were taken and modified from previous workforce surveys of Chinese medicine practitioners in Australia (1, 25), with permission, or were designed by the research team (See Table 5.1). The questions taken from the previous workforce surveys were chosen for their descriptive qualities, to improve validity and to assess changes that might have occurred over the last two decades. The novel questions developed by the research team were designed to fill gaps in knowledge and to ascertain aspects of CM practitioners' attitudes and values that had not been included in the previous surveys. Content and face validation of the survey items was carried out with the assistance of six university academics, researchers, educators and practitioners in Chinese medicine and other disciplines

in Australia. Based on this feedback, the survey was submitted to the Monash University Human Research Ethics Committee (MUHREC) and ethics approval was received (approval number – MUHREC CF10/3438: 2010001818). The survey was translated into Chinese in order to reach more practitioners and improve representativeness. The use of both English and Chinese languages was in line with Chinese medicine Registration Board of Victoria (CMRBV) workforce survey and publications at the time.

Participants were members of the four professional associations or on the CMRBV registrant list, currently and primarily practising CM in Australia. Invitations to complete the survey and reminders were distributed through email, publication in newsletters and links on members website to the Chinese medicine practitioner members of the main professional associations (AACMA, FCMA, ATMS, and ANTA) and the CMRBV. Other professional associations possibly representing CM practitioners contained small numbers of members only and did not respond to invitations to participate. The survey was offered using the online Qualtrics survey distribution and analysis software tool. Participants could also ask to have a paper copy of the survey and reply envelope sent to them, in English or Chinese. It was expected that the use of email distribution and an online survey tool would improve the response rate by making it easier to invite participants and for them to complete the survey. Support from the distributing professional associations combined with assurances of confidentiality and anonymity for survey responders, as well the exclusion of sensitive questions (i.e. income), were also expected to improve the response rate (279).

In order to improve the response rate, strenuous efforts were made to establish communication with the professional associations and the CMRBV, through emails, phone contact, face to face meetings, personal connections, and networking at industry seminars and events. An invitation to present to the CMRBV board meeting in March 2011 was accepted and the research received the CMRBV's endorsement as well as their agreement to actively help in recruiting participants. The research aims were also presented at the largest Australian Chinese medicine conference in May 2011 held by the Australian Acupuncture and Chinese Medicine Association (AACMA), the largest CM professional association in Australia. These and other efforts (including consideration of an incentive to complete the survey, in the form of being entered in a draw to win a bookstore gift voucher) were all undertaken in order to increase awareness about the study, and positively impact the response rate. At the time of survey preparation and distribution, anecdotally there was an apprehensive climate regarding practitioner feelings towards the upcoming national regulation. A response rate of at least 30%

was aimed for. However, as the exact number of people describing themselves as practicing CM in Australia was unclear at the time, and with a lack of structural accountability nationally, the ability to access the population was limited to the professional associations and CMRBV.

Other challenges included: the time it took to undertake the content validation of the survey carried out with key people in the field; significant time in the translation and validation of the Chinese version of the survey; and time and energy spent in promoting of the survey. There was some difficulty in ensuring the compliance of the professional associations in the distribution of the survey invitation and reminders to their CM practitioners. As a result an ethics amendment was sought to increase the distribution outlets of the survey. These included presentations at seminars and leaving copies at industry bookstores, as well as a hard copy mail out to the 1179 registered practitioners on the CMRBV database. This extra effort improved the response rate and was therefore well worth it.

As reported by the Australian Bureau of Statistics, there were around 1,500 CM practitioners in Australia in 2006 (3). AACMA reported having 1,560 practicing CM members in 2011 (280). This survey attempts to provide an accurate description of the CM workforce before the introduction of national registration through quantitative and qualitative measures. This initial analysis will enable this survey to be used longitudinally and will help further refine the understanding of the clinical nature and cultural perspectives of CM practitioners in Australia over time, as well as contribute to our description of the CM workforce.

Limitations

Survey limitations include: participant self-selection and response biases; the distribution methods available, which may not have reached all primary CM practitioners; use of the CMRBV database as part of the recruitment, potentially affecting the generalizability of the results; the fact that the distribution and replies were initially Internet based – although a paper option was available – nonetheless the survey may not have reached practitioners who are not on Internet; the survey length of 66 questions; offering the survey only in English and Chinese languages, while aiming to include the majority of the CM practitioner population, may have still excluded practitioners whose primary language is not English or Chinese; any questions that may have been perceived as asking for sensitive information from participants, despite the fact that questions identified as sensitive (such as those regarding income) and identifiable were excluded and all ethics requirements were followed.

Statistical Analysis

As this is a baseline survey of the CM primary practitioner population in Australia, descriptive statistics were analysed using SPSS.21 and Excel in Microsoft Office Professional Plus 2010. In particular, frequencies and percentages, including means and standard deviations, were obtained from the quantitative data in the survey. Qualitative data from the survey were imported into NVivo10 and included in the qualitative analysis, apart from questions 47 and 48, which because of the type of responses were able to be open-coded using key words and quantified using Excel software, an acceptable method of analysis for some qualitative data (281). The structure of most of the survey questions is in the common Likert response scale format, enabling easy descriptive analysis within individual questions and between the questions of the eight survey areas.

Table 5.1 Survey Question Development: Reference Table

Survey Question	Towards a Safer Choice (1)	CM Registration Board of Victoria Workforce Survey (25)	New question – Monash CM in Australia Study	Longitudinal potential	Workforce Data	Perspective/Attitude
1. What proportion of your practice is in CM?	✓			✓	✓	
2. How would you describe the nature of your CM practice?	✓			✓	✓	
3. In how many locations do you practice CM?	✓			✓	✓	
4. Which of the following describes your regular CM work arrangements?		✓(mod)		✓	✓	
5. Do you do work related to CM in any of the following locations?		✓(mod)		✓	✓	
6. Please record your average total hours worked in CM per week		✓(mod)		✓	✓	
7. Please indicate how many CM patients on average you see in a week		✓		✓	✓	
8. How long, on average, is your initial consultation from a patient's perspective (excluding time in the waiting room, but including time on the treatment table and waiting for herbs)?	✓(mod)			✓	✓	
9. How long, on average, is your subsequent consultation from a patient's perspective (excluding time in the waiting room, but including time on the treatment table and waiting for herbs)?	✓(mod)			✓	✓	
10. What languages do you use professionally in patient encounters?		✓(mod)		✓	✓	
11. What is the average fee you charge for a CM consultation in your practice?	✓			✓	✓	
12. What payment methods do you offer your patients?			✓	✓	✓	
13. Do you offer a receipt to your patients?			✓	✓	✓	
14. Why did you choose Chinese medicine as a career?			✓	✓	✓	✓
15. Please indicate how frequently your clients are referred to you from the following sources	✓			✓	✓	
16. Please indicate how frequently you refer your clients to the following health care practitioners	✓			✓	✓	
17. Do you write patient notes for each consultation?	✓(mod)			✓	✓	
18. In what form are your records and notes kept?			✓	✓	✓	
19. Please indicate how frequently you use the following Chinese medicine modalities in your practice	✓(mod)			✓	✓	
20. Please indicate how frequently you use the following Non-Chinese medicine modalities in your practice	✓(mod)			✓	✓	
21. If you use acupuncture in your practice, what style of acupuncture do you practice?			✓	✓	✓	
22. If you use Chinese herbal medicine in your practice, do you provide to patients the full list of herbs and dosages for all formulations prescribed?			✓	✓	✓	
23. How frequently do your patients experience reportable adverse events (i.e. a negative response to herbs or acupuncture) in your practice?	✓(mod)			✓	✓	
24. How frequently do you report adverse events (i.e. a negative response to herbs or acupuncture) to the Therapeutic Goods Association?			✓	✓	✓	
25. How frequently do you utilise Western diagnostic results in your practice? (blood test, X-rays, etc)	✓			✓	✓	

26. When you formulate your Chinese medicine diagnosis do you also name a biomedical condition?	✓(mod)			✓	✓	
27. Do you rely predominantly on a Chinese medicine philosophy and theoretical framework for making your diagnosis and guiding your acupuncture or Chinese herbal medicine treatments?	✓			✓	✓	
28. Do you have any other comments regarding your clinical practice of CM?			✓	✓		✓
29. Have you undertaken any continuing professional development in CM in the last 12 months?	✓(mod)			✓	✓	
30. Do you consider yourself as being in a mentor/mentee relationship?			✓	✓	✓	
31. Would you like professional support to be provided to new graduates in the transition to clinical practice?			✓	✓		✓
32. How often do you discuss the following with other CM practitioners			✓	✓	✓	
33. How often do you discuss the following with non-CM health professionals			✓	✓	✓	
34. In your opinion, who should provide continuing professional development opportunities (CPD)?			✓			✓
35. Do you have any other comments regarding continuing professional development in CM?			✓			✓
36. How important are the following kinds of information to you in your practice of CM?			✓	✓		✓
37. Do you have any other comments regarding evidence in CM?			✓	✓		✓
38. Please indicate, in order of importance to yourself, the professional associations of which you are a member	✓			✓	✓	
39. Do you agree that the following are the roles of professional associations representing CM practitioners?			✓			✓
40. Are there any areas in which you like would like more support from your professional association?			✓	✓		✓
41. Do you have any other comments regarding CM professional associations in Australia?			✓	✓		✓
42. Are you registered with the Chinese Medicine Registration Board of Victoria?		✓		✓	✓	
43. In which division/s are you registered with the Chinese Medicine Registration Board of Victoria?		✓		✓	✓	
44. If you are registered in Victoria, what do you perceive have been the benefits or costs of statutory regulation of CM in Victoria since 2002?	✓(mod)			✓		✓
45. What do you perceive as the likely benefits or costs of the future national government regulation of CM from 2012?	✓(mod)			✓		✓
46. Do you have any other comments regarding the regulation of CM in Australia?			✓	✓		✓
47. What do you perceive are the main features of CM in Australia that differentiate it from other forms of health care in Australia?			✓	✓		✓
48. What do you perceive are the main features of CM in Australia that differentiate it from CM in other countries, including China?			✓	✓		✓
49. How important to you is CM classical theory and practice (e.g. Huang di Nei Jing, Shang Han Lun)			✓	✓		✓
50. How important to you are findings from evidence based medicine research in CM			✓	✓		✓
51. What is most important to you for the future of your practice of CM in Australia?			✓	✓		✓
52. In your opinion how important are the following issues for CM in Australia?			✓	✓		✓
53. Do you have any other comments regarding the future of CM in Australia?			✓	✓		✓

54. How many years of clinical experience (both full-time and part-time) do you have in CM?	✓			✓	✓	
55. Please indicate how many of these years of CM clinical experience (both full-time and part-time) have been gained overseas.	✓			✓	✓	
56. How many years of clinical experience (both full-time and part-time) do you have in health practice modalities OTHER THAN CM?	✓			✓	✓	
57. Please provide the following information for qualifications you have in CM (including acupuncture, Chinese herbal medicine, or any other modality of CM**)**	✓			✓	✓	
58. If your CM training was done through an apprentice style process, please indicate the number of years training and the style of the apprenticeship:	✓			✓	✓	
59. Please provide the following information for qualifications you have other than in CM	✓			✓	✓	
60. Do you have any other comments regarding education in CM in Australia?			✓	✓		✓
61. What is your sex?	✓			✓	✓	
62. Please write your year of birth		✓		✓	✓	
63. Please indicate your place of birth		✓		✓	✓	
64. Is English your first language?			✓	✓	✓	
65. What is the postcode of your usual residence?	✓			✓	✓	
66. What is the postcode of your primary work location?	✓			✓	✓	
Any further comments	✓			✓		✓
Totals	**27**	**9**	**31**	**64**	**47**	**20**

Note: ALL – CHARACTERISE AND CONCEPTUALISE PRACTICE OF CM IN CONTEXT OF A PROFESSION

Workforce – DESCRIBE WORKFORCE NATURE AND PRACTICE (IN CONTEXT OF DEVELOPMENT AS A PROFESSION)/ COMPARE WITH PREVIOUS DATA/ DEVELOP RELEVANT GUIDELINES

Perspectives – DESCRIBE PRACTITIONER VIEWS AND VALUES/ CONCEPTUALISE FUTURE DEVELOPMENT OF CM/ INFORM POLICY AND REGULATORS, EDUCATORS, PROFESSIONAL ASSOCIATIONS

5.2 Results

The Chinese medicine in Australia survey (See Table 5.1 or Attachment 1) closed January 31st 2012, with 655 responses received (adjusted n= 1570). The sampling frame (279) was determined by adding up the sum of the members of the four professional associations and CMRBV registrant list (n=4774). The number of CMRBV registrants who had insufficient mailing details (n=116) and the surveys which were returned to sender (n=27) were then subtracted. The number of paper copies sent to CMRBV members (n=1179) was then subtracted from this as 98% survey respondents who were CMRBV registrants also had at least one professional association membership, bringing the sample population number to 3737. This was then calculated to include the percentage of this number who indicated they were a member of more than one professional group in their survey response (42%) giving an approximate n of 1570. Adjusting for non-practising and professional association members who did not receive the survey invitation, and therefore as an exploratory and descriptive survey of a count unknown population at the time undertaken, the response rate of primary CM practitioners is therefore approximately between 42-55%.

Demographics

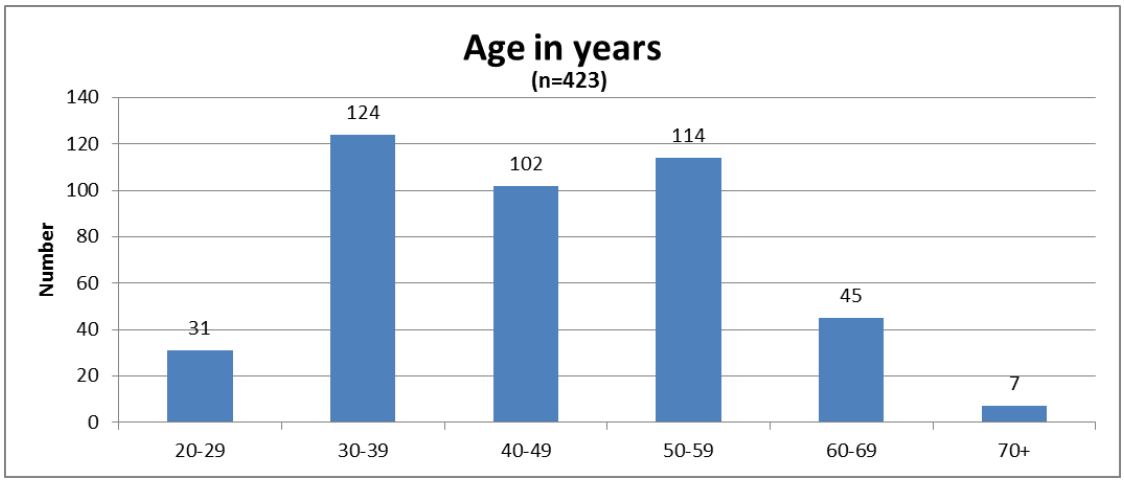
Roughly in line with CMRBV workforce data (25), more than half of CM practitioners surveyed were female (56.4%) and less than half were male (43.6%). See Table 5.2.

Table 5.2 Survey respondent demographics

Sex (n=436)	Male	43.6%
	Female	56.4%
Age in years (n=422)	20-29	7.3%
	30-39	28.9%
	40-49	24.2%
	50-59	27%
	60-69	10.7%
	70+	1.7%
Country of Birth (n=436)	Australia or New Zealand	53.7%
	China	20.6%
	Western Europe	9.6%
	Elsewhere in SE Asia	8.9%
	Other	6.9%
Years of clinical practice in CM (n=435)	<4	20.7%
	5-6	13.6%
	7-10	18.9%
	11-15	13.1%
	16-20	8.5%
	21-25	8.3%
	26-30	9.2%
	<31	7.8%

Survey participants were relatively young in age, although seven respondents reported being over 70 years old (See Figure 5.1).

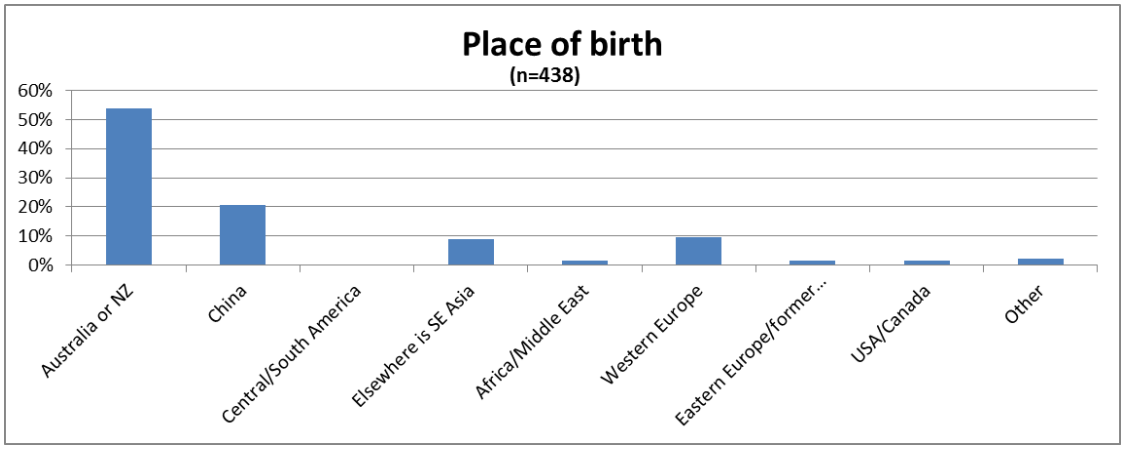
Figure 5.1 Respondents by age group



Place of birth

Over half of CM practitioners were born in Australia or New Zealand, with a significant percentage, just over 20%, naming China as their country of birth. This is in line with previous CMRBV workforce data (25). See Figure 5.2.

Figure 5.2 Respondents by country of birth

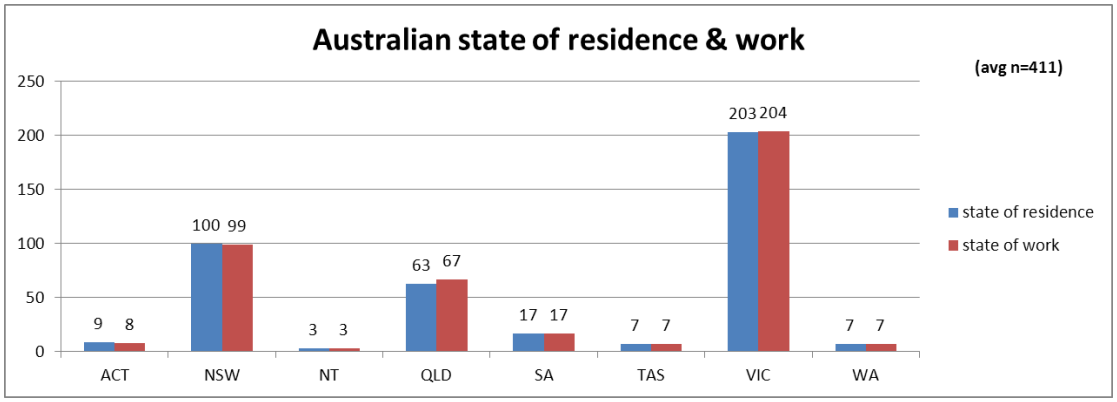


Place of residence and practice

While the largest proportion of respondents came from the Australian state of Victoria (nearly 50%), one quarter came from New South Wales. The next highest responding state was Queensland, with 63 responses, and then South Australia and the ACT. All Australian states

and territories were represented. As expected, nearly all respondents reported practicing in the state in which they resided. See Figure 5.3.

Figure 5.3 Number of respondents by state/territory of residence & work in Australia



Language

Although English was not the first language for one third of the CM practitioners who completed the survey (See Figure 5.4), as you can see from the Figure 5.5, English was the language used professionally in clinical practice by most practitioners.

Figure 5.4 Number of respondents by first language

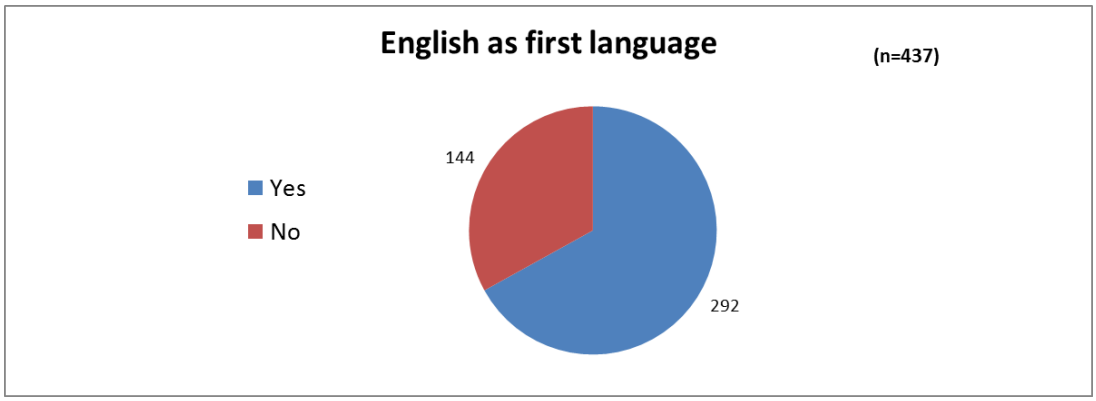
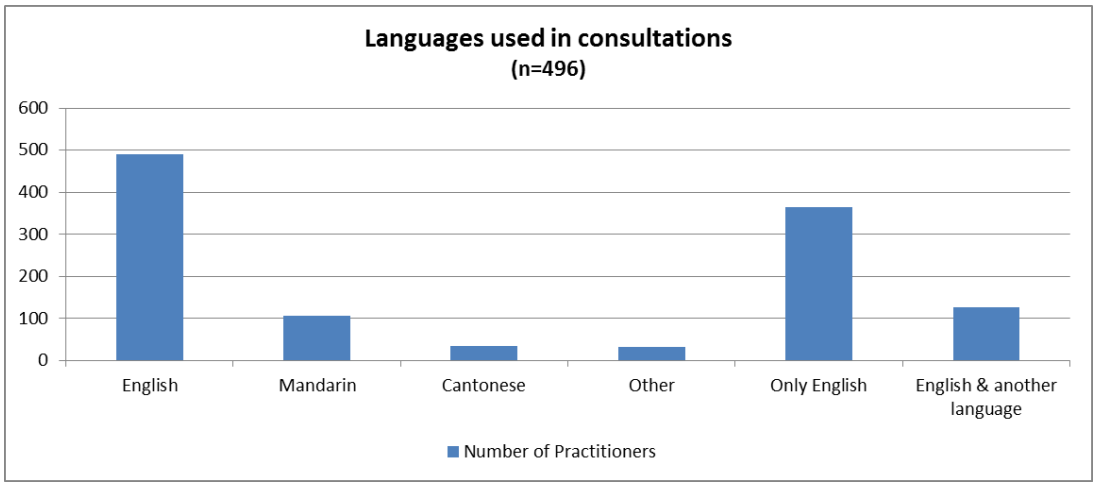


Figure 5.5 Languages used in clinical consultations

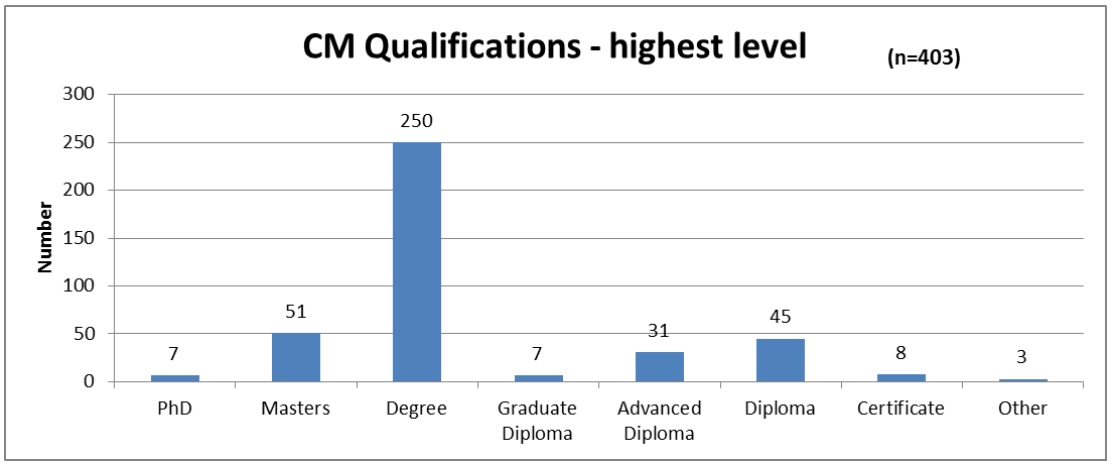


Some of the other languages used in clinical practice include Korean (n=6), Greek (n=4), Italian (n=3), Japanese (n=3), and Vietnamese (n=3).

Chinese medicine qualifications

Over three quarters of CM practitioners said that they had a degree level education or higher. See Figure 5.6.

Figure 5.6 Highest level of CM qualifications attained



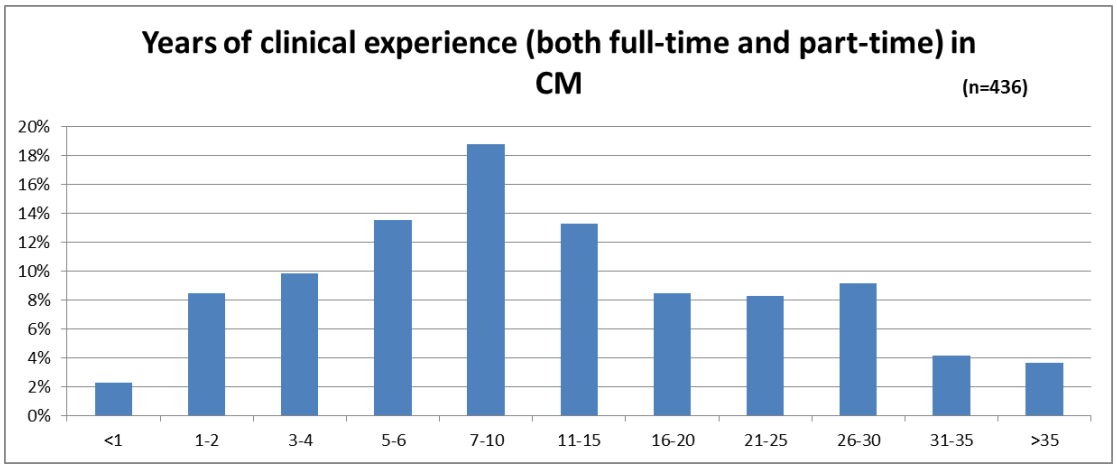
When asked if their training in CM was undertaken through an apprentice style process, 45 respondents indicated that they had undertaken training under what they considered to be a form of apprenticeship.

Years of clinical experience

While a small proportion had over thirty years of clinical practice in CM, about half of CM practitioners had less than ten years of experience in CM. This suggests that while most are over thirty years of age (93% - see Table 5.2), and may therefore have some previous life

experience, the largest proportion of the workforce of CM practitioners in Australia are also relatively new to clinical practice, with 52% having less than ten years of clinical experience in CM. See Figure 5.7.

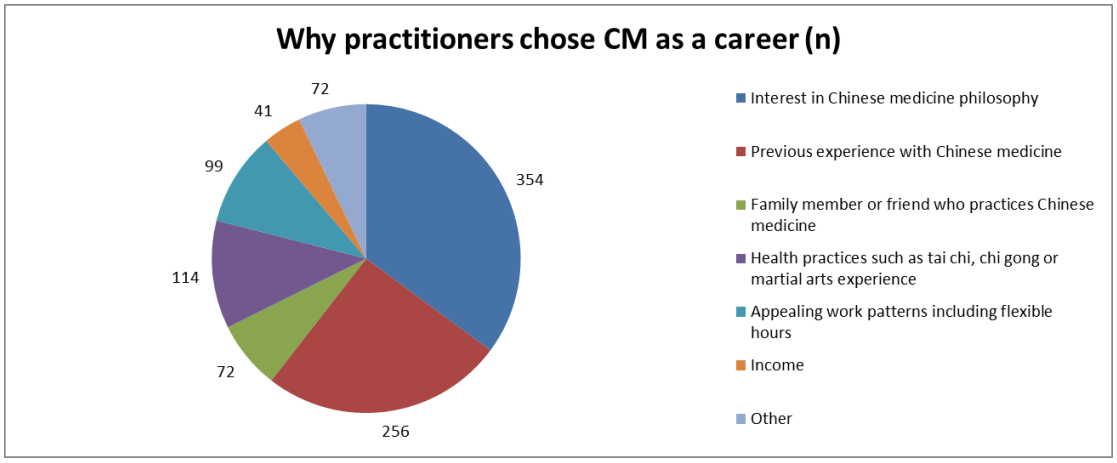
Figure 5.7 Years of clinical experience of respondents



Reason for choosing CM as a career

By far the majority of participants said that they had an interest in the philosophy of CM and felt that previous experience with CM contributed to their decision to study and practice CM. Experiences in related practices, such as tai chi and martial arts, can also be seen to affect the decision to enter into CM. While a fair proportion of respondents were interested in the flexible work options available, interesting enough relatively few practitioners chose to practice CM for an income. See Figure 5.8.

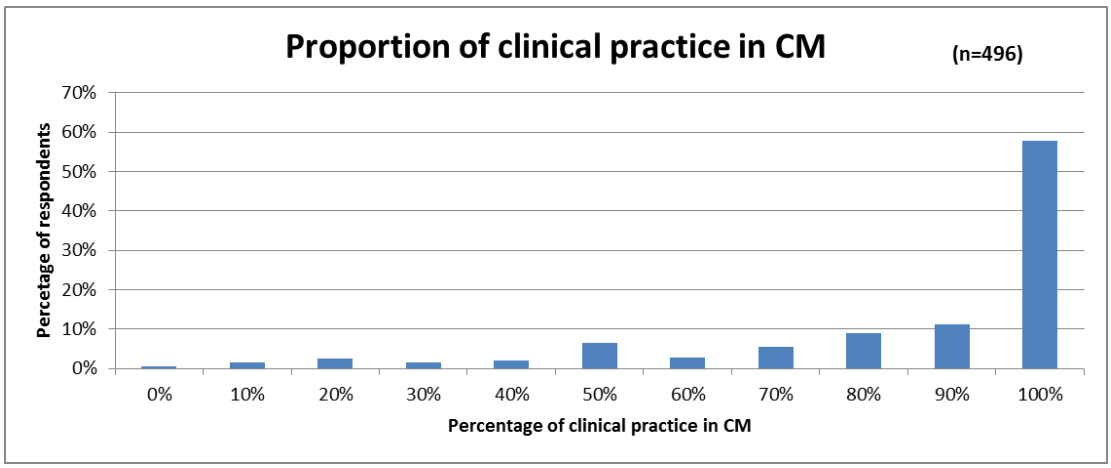
Figure 5.8 Reasons for choosing CM as a career



Clinical practice

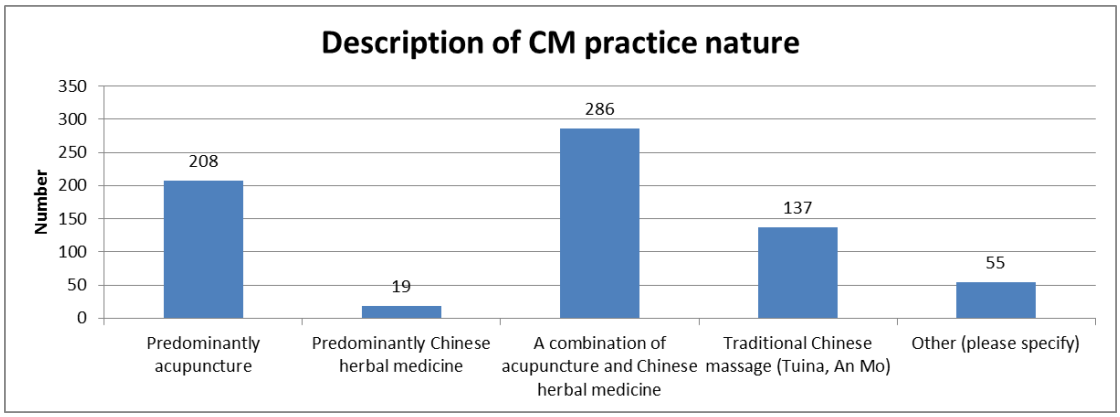
Almost all practitioners said that CM made up over 70% of their clinical practice (see Figure 5.9).

Figure 5.9 Proportion of clinical practice practicing primarily in CM



Most practitioners described their practice as a combination of acupuncture and Chinese herbal medicine, or predominantly acupuncture (see Figure 5.10 below).

Figure 5.10 Nature of clinical practice

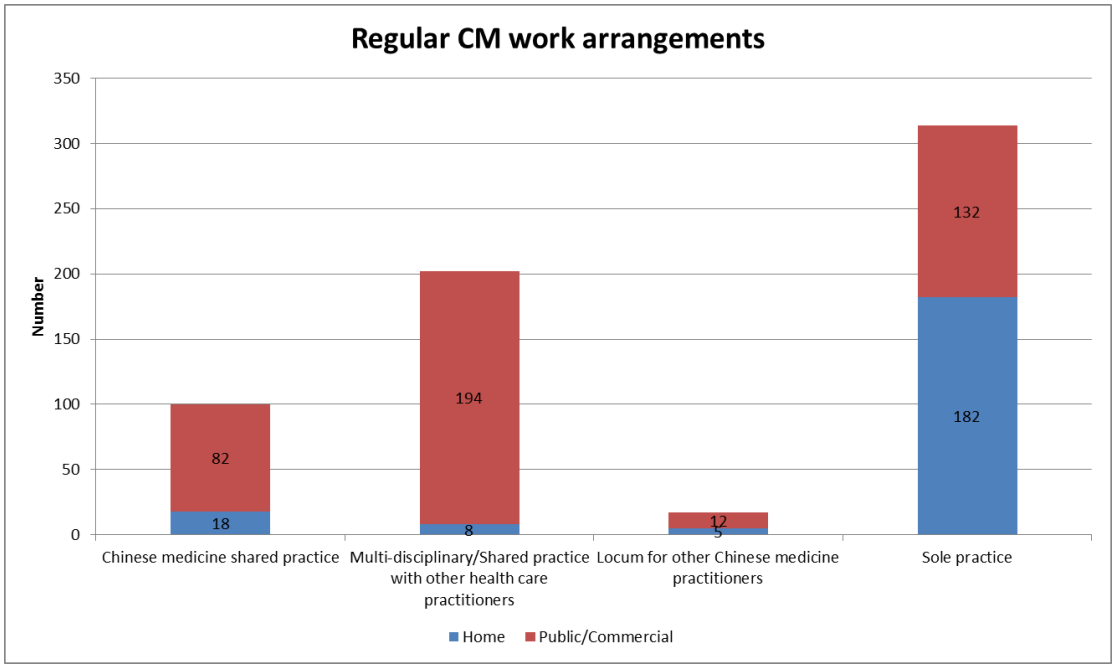


The majority of CM practitioners who responded reported practicing out of one location (65.7 %). 26.8% said they practiced CM in two locations with the rest reporting practicing out of three (5.7%) or four locations (1.8%).

As can be seen from Figure 5.11, the highest number of practitioners who responded to the survey indicated working in a sole practice, whether from home or in a public or commercial setting. A roughly equal number again reported practicing in a shared CM practice or multi-disciplinary practice with other practitioners. See Figure 5.11 below. These findings suggest

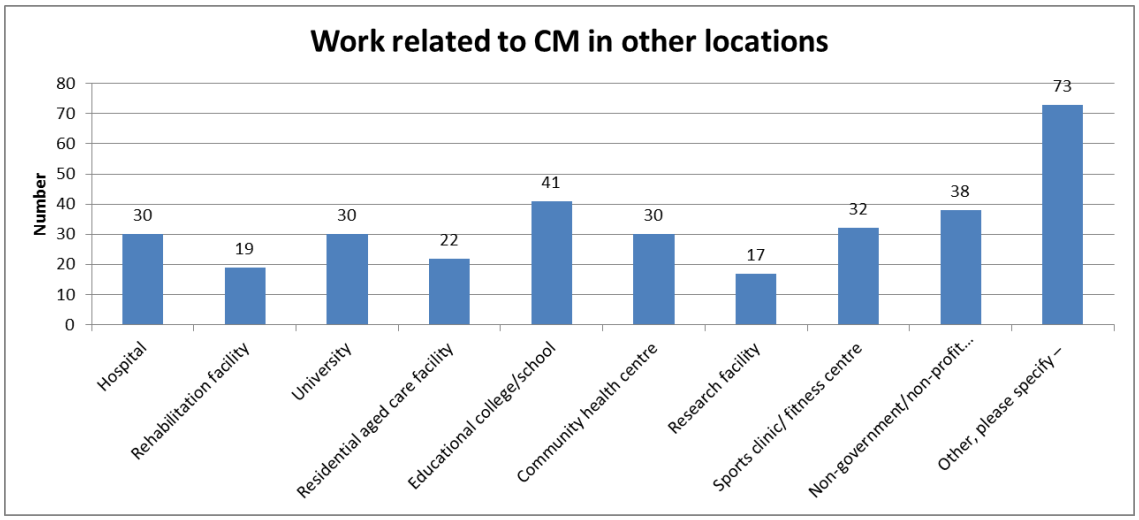
that while many CM practitioners work in a sole practice, many also work in a shared clinical setting.

Figure 5.11 CM work arrangements



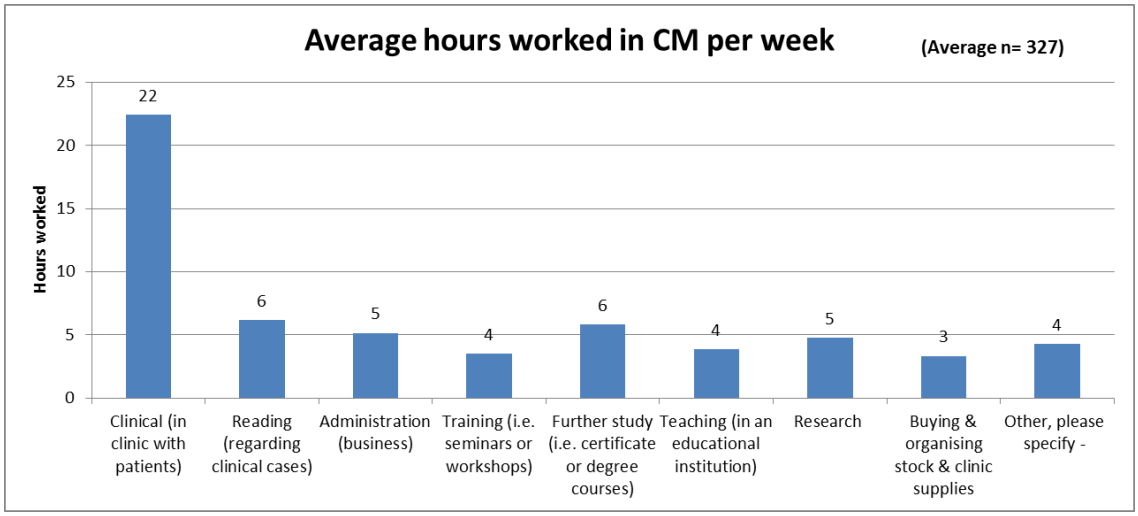
A small number of practitioners reported doing work related to CM in a variety of other settings, the highest of these being educational colleges and schools, non-government/non-profit settings, and sports clinics/fitness centres. Other locations included medical clinics, day spas and health retreats, herbal and health shops, yoga centres and home visits. See Figure 5.12 below.

Figure 5.12 Work related to CM in other locations



When we look at the results of the question asking how CM practitioners spend their work time each week set out in Figure 5.13, we can see that on average practitioners spend most of their time – an average of twenty two hours – in the clinic with patients. However, as can be seen from the Figure 5.14 below, they also spend a number of hours engaged in other professional activities.

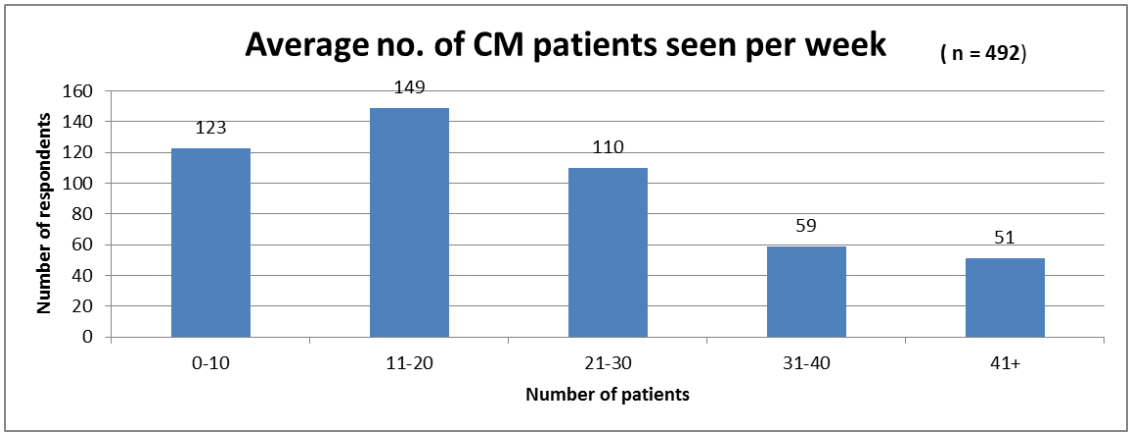
Figure 5.13 Average hours worked in CM per week



Characteristics of CM consultations

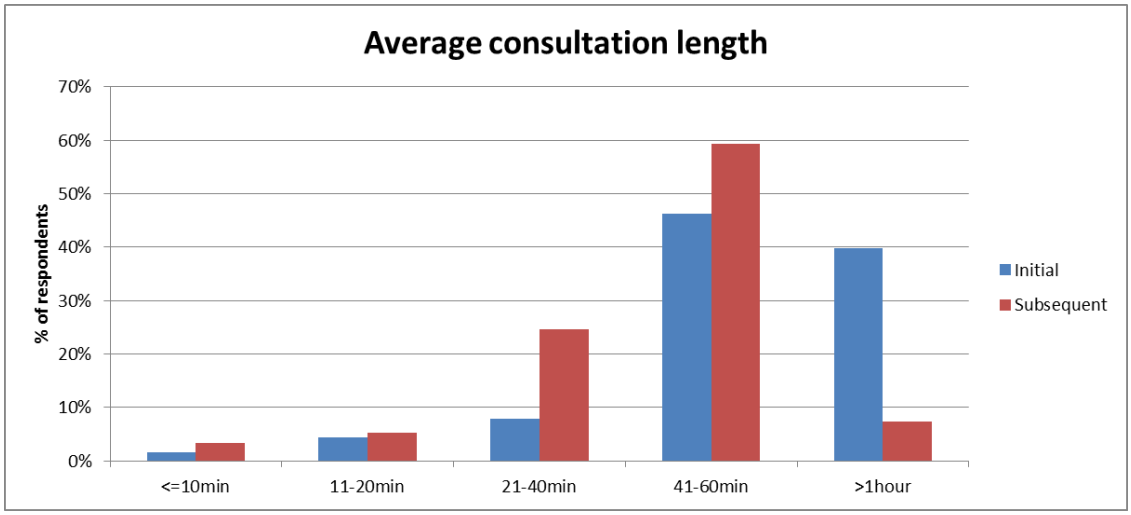
The highest number of participants said that they saw on average between 11 and 20 patients per week (see Figure 5.14). The next highest number reported seeing on average 10 or less patients per week, suggesting perhaps a part-time workforce or a workforce that is still developing. The mean number of patients that CM practitioners reported seeing was 20 patients per week.

Figure 5.14 Average number of patients per week



Most practitioners spent 40 minutes or longer with new patients, and in subsequent consultations most continued to see patients for at least 40 minutes. See Figure 5.15 below.

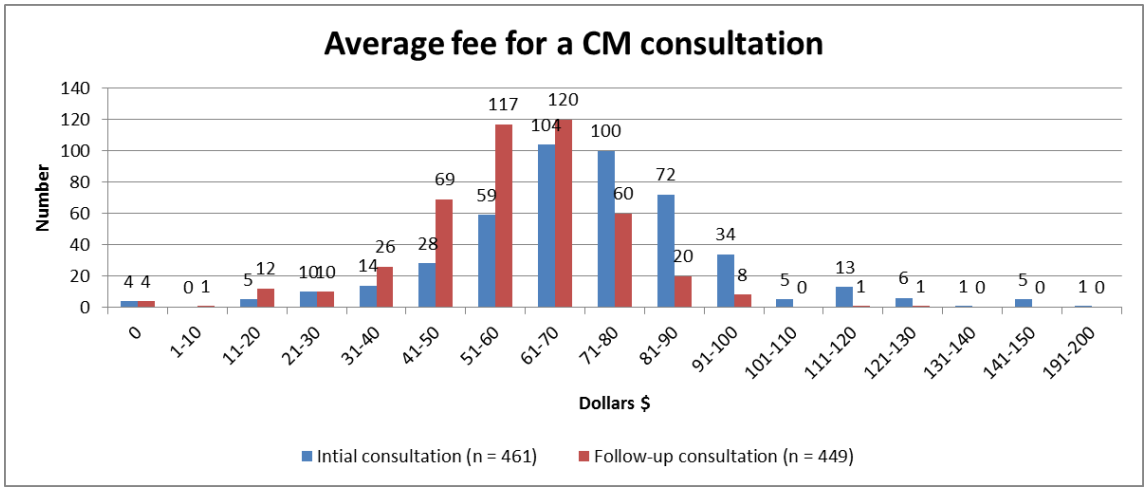
Figure 5.15 Average and initial consultation lengths



CM Consultation Fees & Payments

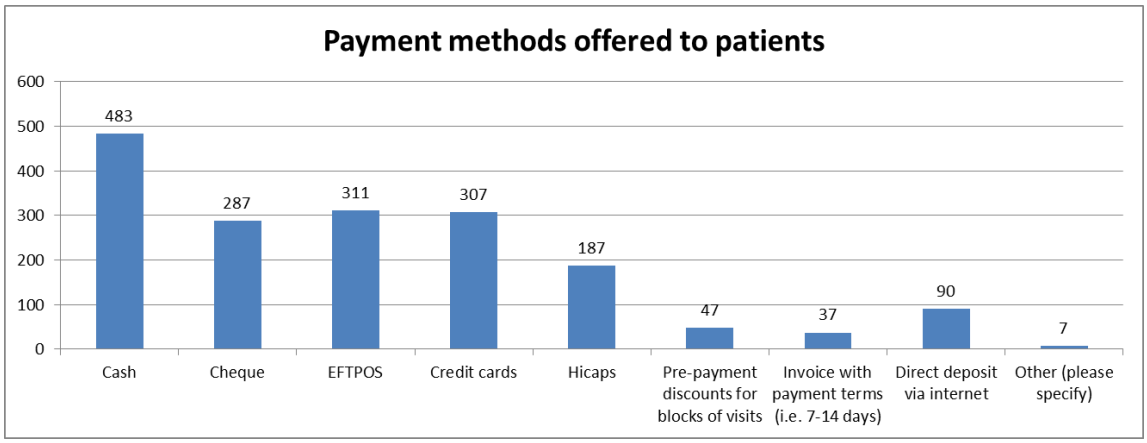
Practitioners can be seen to be charging a range of fees for their CM services (see Figure 5.16). Most charge more for an initial consultation, and between $41-80 for subsequent consultations.

Figure 5.16 Average fees for a CM consultation



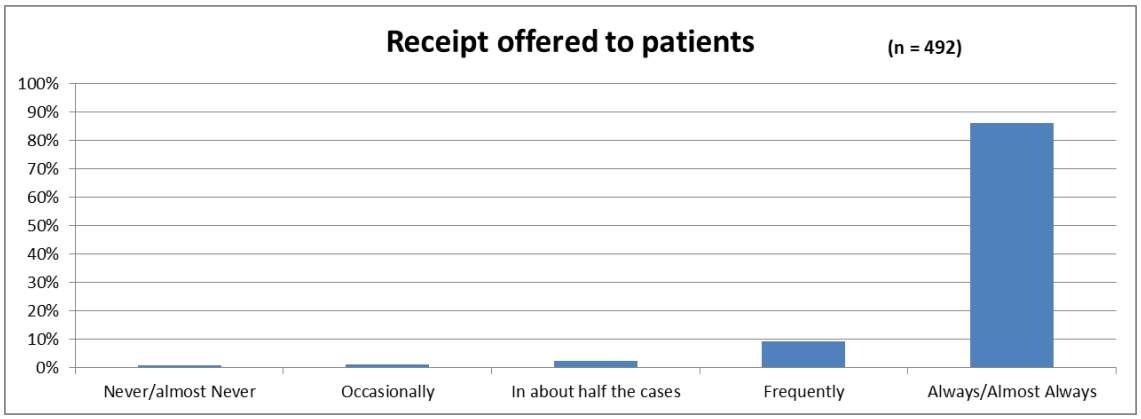
A variety of payment methods can be seen to be offered by CM practitioners, with cash being the most common. See Figure 5.17.

Figure 5.17 Payments methods



One of the many professional behaviours investigated in this survey was how often receipts were offered to patients, and here we can see that the main proportion of CM practitioners reported always to almost always offering receipts to their patients (See Figure 5.18). These data suggests practitioners may have been behaving in line with the previous CMRBV regulatory guidelines regarding receipting practices.

Figure 5.18 Receipt offered to patients



Referrals

As can be seen from Table 5.3, practitioners were found to have a number of patients referred to them from a variety of sources, in particular, massage therapists, nurses and midwives. However, far and away the main source of referral reported was that of self-referral, where patients came from word-of-mouth or advertising done by the practitioner themselves.

Table 5.3: Frequency of referrals from other practitioners

Referral source	Q. N	Never/ almost Never		Occasionally		In about half the cases		Frequently		Always/ Almost Always	
Self-referred (word of mouth, other patients, advertising)	488	4	1%	36	7%	57	12%	204	42%	187	38%
Another CM Practitioner	419	159	38%	238	57%	7	2%	12	3%	3	1%
Chiropractor	417	185	44%	210	50%	6	1%	14	3%	2	0%
Osteopath	405	198	49%	192	47%	3	1%	12	3%	0	0%
General Practitioner (GP)	433	166	38%	241	56%	13	3%	12	3%	1	0%
Medical Specialist	386	258	67%	117	30%	7	2%	3	1%	1	0%
Physiotherapist	400	219	55%	165	41%	10	3%	6	2%	0	0%
Naturopath	414	159	38%	229	55%	12	3%	14	3%	0	0%
Western Herbalist	385	287	75%	90	23%	4	1%	4	1%	0	0%
Homeopath	391	293	75%	91	23%	4	1%	3	1%	0	0%
Massage Therapist	425	111	26%	264	62%	24	6%	24	6%	2	0%
Pharmacist	385	330	86%	49	13%	4	1%	2	1%	0	0%
Psychologist	391	241	62%	143	37%	5	1%	2	1%	0	0%
Counsellor	386	242	63%	137	35%	5	1%	2	1%	0	0%
Health Food Store Worker	393	250	64%	124	32%	14	4%	4	1%	1	0%
Nurse	400	205	51%	166	42%	16	4%	13	3%	0	0%
Midwife	388	196	51%	159	41%	20	5%	12	3%	1	0%
Other (please specify)	76	47	62%	16	21%	5	7%	8	11%	0	0%

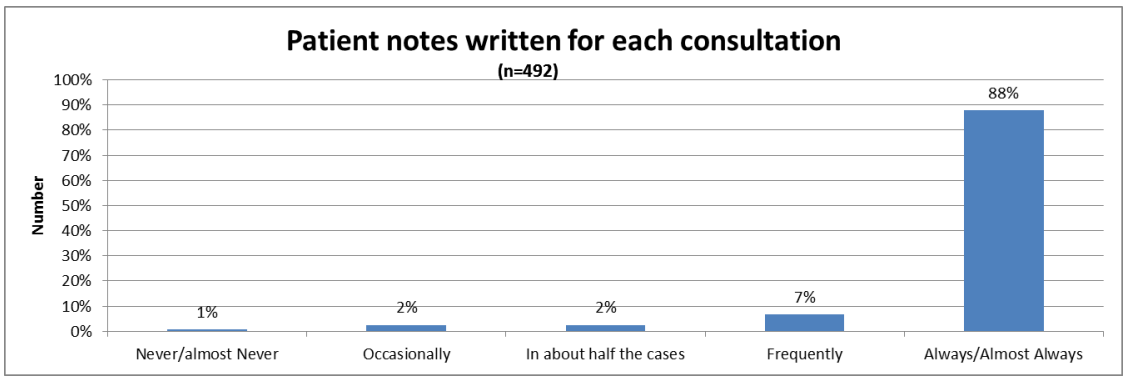
While practitioners can be seen to be occasionally to frequently referring their patients to a number of other types of practice, they most often reported referring their patients to a General Practitioner or another CM practitioner. See Table 5.4.

Table 5.4 Frequency of referrals to other practitioners

Referral to	Q. N	Never/ almost Never		Occasionally		In about half the cases		Frequently		Always/Almost Always	
Another CM Practitioner	448	72	16%	350	78%	11	2%	11	2%	4	1%
Chiropractor	423	156	37%	247	58%	12	3%	7	2%	1	0%
Osteopath	419	116	28%	271	65%	17	4%	14	3%	1	0%
General Practitioner (GP)	454	43	9%	332	73%	41	9%	34	7%	4	1%
Medical Specialist	412	179	43%	201	49%	17	4%	14	3%	1	0%
Physiotherapist	409	205	50%	192	47%	7	2%	4	1%	1	0%
Naturopath	410	209	51%	179	44%	11	3%	9	2%	2	0%
Western Herbalist	394	296	75%	89	23%	4	1%	3	1%	2	1%
Homeopath	397	254	64%	140	35%	3	1%	0	0%	0	0%
Massage Therapist	417	105	25%	267	64%	19	5%	19	5%	7	2%
Psychologist	405	172	42%	218	54%	7	2%	8	2%	0	0%
Counsellor	403	150	37%	235	58%	10	2%	8	2%	0	0%
Nurse	375	336	90%	39	10%	0	0%	0	0%	0	0%
Midwife	383	257	67%	121	32%	2	1%	3	1%	0	0%
Other (please specify)	63	42	67%	19	30%	0	0%	2	3%	0	0%

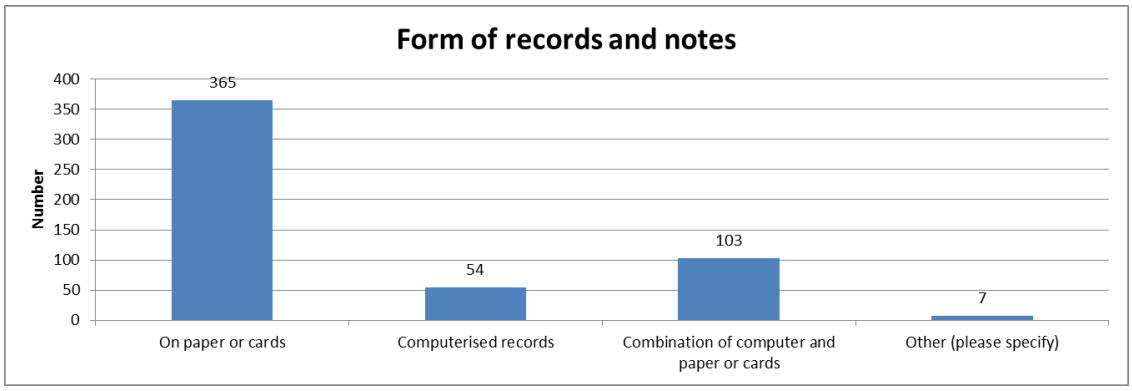
Practitioners were found to always or almost always keep notes of patient consultations. See Figure 5.19.

Figure 5.19 Patient notes



Most often these patient notes were in the form of paper or on cards, although a small number did report using computerised records also. See Figure 5.20.

Figure 5.20 Forms of clinical records



CM modalities used in clinic

Acupuncture was the most frequently used CM modality in the clinic, with nearly all respondents (93%) reporting that they frequently to always/almost always employed the technique with their patients in clinic. Chinese dietary and lifestyle advice was also frequently to always/almost always employed, and Chinese herbal medicine in some form was also frequently employed. Electro-acupuncture, CM massage, non-scarring moxibustion, exercise advice, dermal hammer, gua sha, imbedding needles and bleeding techniques can be seen to be occasionally used. On the other hand, laser acupuncture, raw herbal decoctions, point injection therapy and scarring moxibustion were the most often reported as never/almost never used. See Table 5.5.

Table 5.5 Frequency of use of CM modalities in clinical practice

Frequency of use of CM modalities in clinical practice											
	Total Q. N	Never/ almost Never		Occasionally		In about half the cases		Frequently		Always/ Almost Always	
Acupuncture (manual needle stimulation with skin penetration)	489	7	1%	14	3%	13	3%	68	14%	387	79%
Laser acupuncture	430	328	76%	69	16%	7	2%	22	5%	4	1%
Electro-acupuncture	458	137	30%	179	39%	50	11%	81	18%	11	2%
CHM – raw herb decoctions	445	279	63%	87	20%	14	3%	44	10%	21	5%
CHM – granules, powders	460	145	32%	127	28%	41	9%	86	19%	61	13%
Patent CHM – pills, tablets, liquids, syrups	466	71	15%	163	35%	66	14%	115	25%	51	11%
Patent CHM – patches, ointments, balms	463	95	21%	200	43%	46	10%	92	20%	30	6%
Individualised patent herbs (liquids, granules)	437	221	51%	110	25%	19	4%	53	12%	34	8%
CM massage (An Mo, Tuina)	474	129	27%	121	26%	63	13%	100	21%	61	13%
CM dietary advice	475	29	6%	104	22%	82	17%	149	31%	111	23%
Lifestyle advice	478	10	2%	66	14%	89	19%	161	34%	152	32%
Non-scarring moxibustion	459	69	15%	160	35%	67	15%	106	23%	57	12%
Scarring moxibustion	434	390	90%	22	5%	5	1%	15	3%	2	0%
Cupping	479	33	7%	181	38%	101	21%	131	27%	33	7%
Exercise advice (tai chi, qi gong)	449	66	15%	147	33%	98	22%	101	22%	37	8%
Point injection therapy	436	403	92%	21	5%	4	1%	8	2%	0	0%
Scraping/Gua sha	460	166	36%	196	43%	47	10%	41	9%	10	2%
Dermal hammer/Plum Blossom technique	449	273	61%	153	34%	13	3%	8	2%	2	0%
Imbedding needles	439	290	66%	108	25%	19	4%	19	4%	3	1%
Bleeding	451	216	48%	209	46%	12	3%	11	2%	3	1%
Other (please specify)	75	39	52%	9	12%	4	5%	18	24%	5	7%

Practices which are not primarily CM modalities are mostly either never/almost never used, or used occasionally, by CM practitioners in their practice. Bodywork techniques, including massage, were used the most, with one third of respondents using them at least half of the time. Practitioners reported occasionally using vitamin and mineral therapy, counselling and nutritional advice. See Table 5.6.

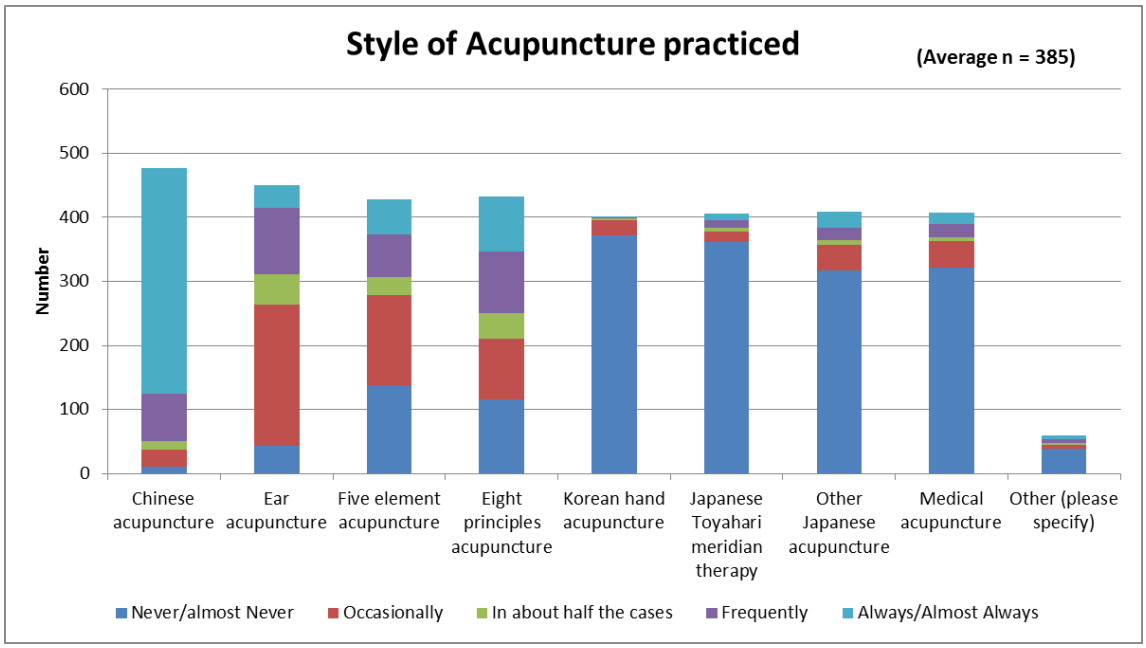
Table 5.6 Frequency of use of non-CM modalities in clinical practice

Frequency of use of non-CM modalities in clinical practice											
	Total Q. N	Never/ almost Never		Occasionally		In about half the cases		Frequently		Always/ Almost Always	
Western Herbal medicine	445	315	71%	94	21%	9	2%	20	5%	6	1%
Orthodox WM	437	369	85%	49	11%	11	3%	4	1%	3	1%
Ayurvedic medicine	436	405	93%	26	6%	1	0%	1	0%	2	0%
Vitamin/mineral therapy	450	198	44%	174	39%	28	6%	41	9%	8	2%
Homeopathy	443	363	82%	66	15%	6	1%	6	1%	1	0%
Physiotherapy	440	387	88%	38	9%	4	1%	4	1%	5	1%
Chiropractic	437	401	92%	21	5%	6	1%	4	1%	4	1%
Osteopathy	442	399	90%	32	7%	4	1%	4	1%	2	0%
Nursing	435	407	94%	18	4%	3	1%	4	1%	2	0%
Midwifery	431	400	93%	25	6%	2	0%	2	0%	1	0%
Bodywork (Massage, Reflexology)	444	169	38%	129	29%	48	11%	57	13%	41	9%
Shiatsu	433	333	77%	51	12%	18	4%	24	6%	7	2%
Counselling	457	173	38%	152	33%	57	12%	54	12%	21	5%
Nutritional advice	457	85	19%	166	36%	70	15%	95	21%	41	9%
Other (please specify)	74	43	58%	6	8%	6	8%	11	15%	8	11%

Styles of acupuncture

When asked which form of acupuncture they most used, the majority of practitioners said they used Chinese acupuncture techniques. Ear acupuncture, five element acupuncture, and eight principles acupuncture styles were used occasionally to frequently, while Korean and Japanese styles were never/almost never used by most respondents. See Figure 5.21.

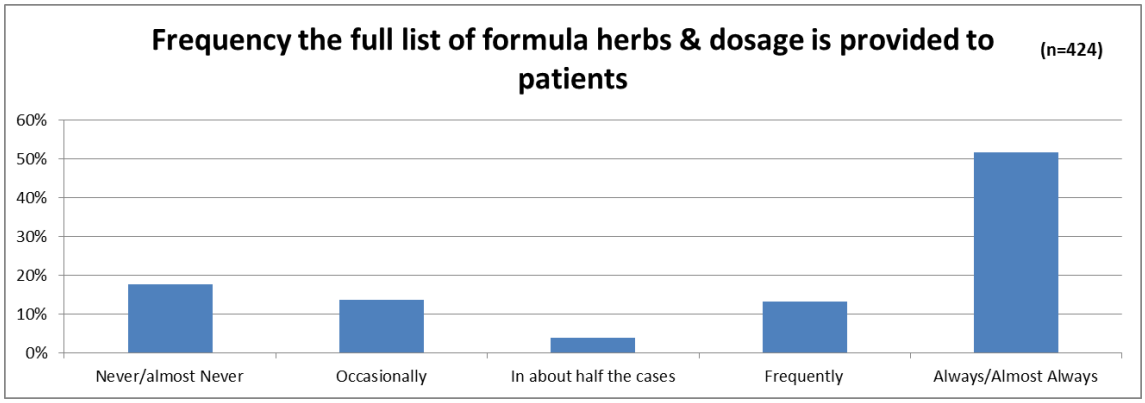
Figure 5.21 Styles of Acupuncture practised



Herbal medicine practice

Just over half of practitioners said they provided a full list of formula herbs and dosages to patients, a previous regulatory guideline of the CMRBV. See Figure 5.22.

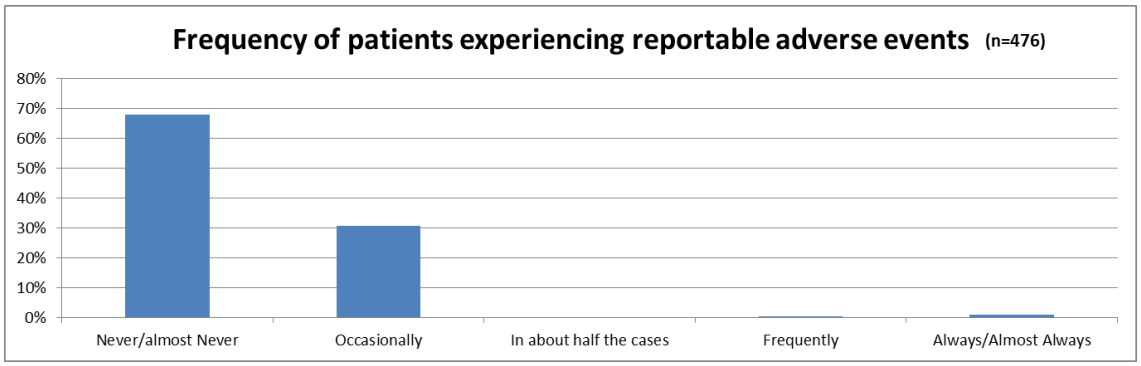
Figure 5.22 Frequency the full list of herbs and dosages is provided to patients



Adverse events

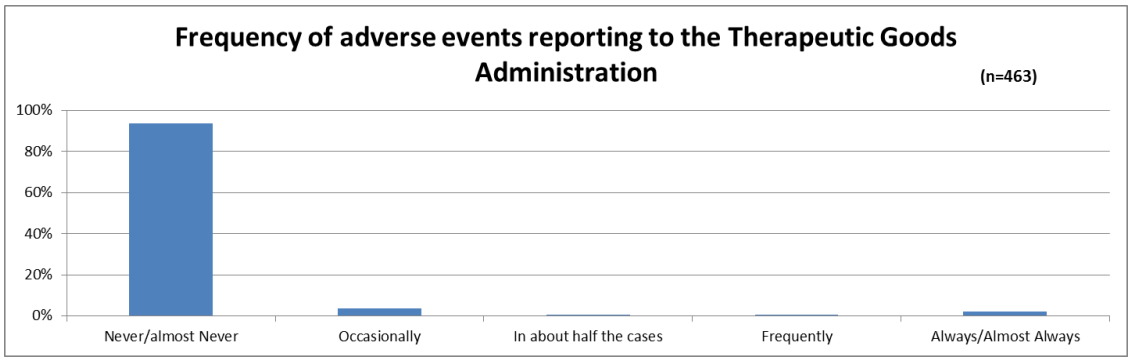
Almost all practitioners responded that their patients occasionally to never/almost never experienced reportable adverse events. See Figure 5.23.

Figure 5.23 Frequency of adverse events



At the same time, practitioners overwhelmingly said they never/almost never reported adverse treatment responses to the Therapeutic Goods Administration (TGA), a previous requirement of registration in Victoria. See Figure 5.24.

Figure 5.24 Frequency of reporting adverse events to the TGA



Use of CM theory by practitioners

As you can see from the following three graphs (Figures 5.25, 5.26, 5.27), while CM practitioners can be seen to be frequently to always/almost always relying on CM theory to help them make their diagnosis and treatment plan in clinical practice, they occasionally to frequently report using western diagnostic test results and western medical diagnosis names in their clinical deliberations. This suggests that while CM practitioners in Australia are primarily practicing according to CM theories and frameworks, at the same time they are also engaging in WM terminology and integrating it with their CM knowledge and practice.

Figure 5.25 Use of western diagnostic results in clinical practice

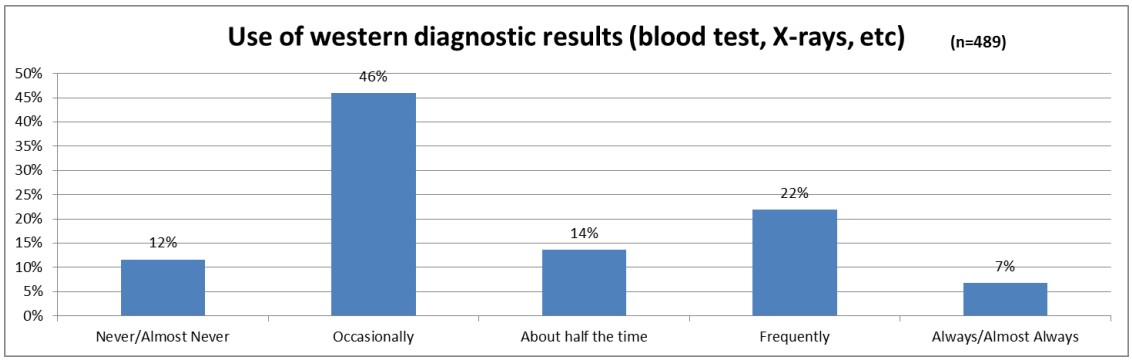


Figure 5.26 Use of biomedical terms in establishing a CM diagnosis

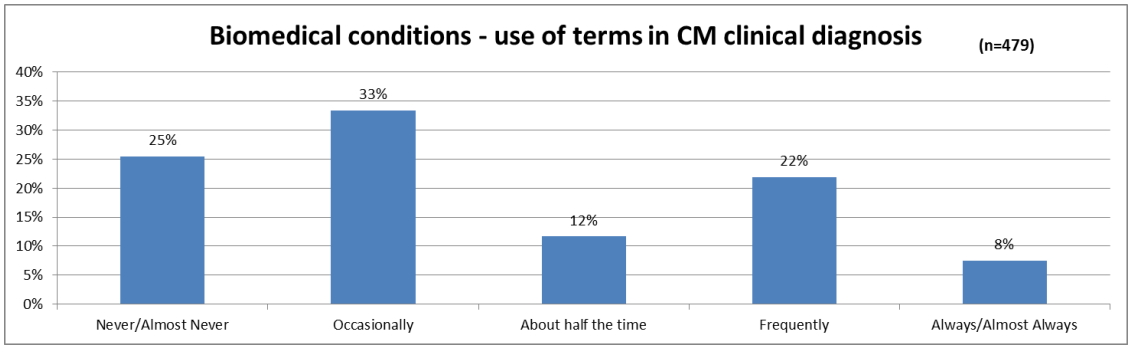
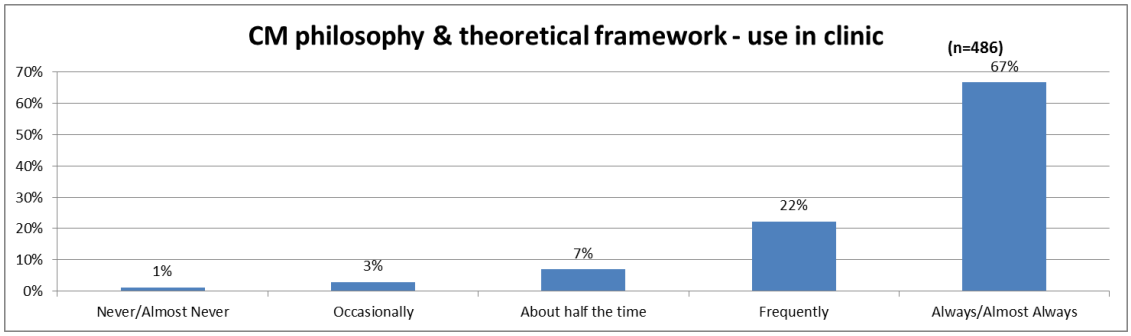


Figure 5.27 Use of CM theoretical framework in guiding clinical decisions

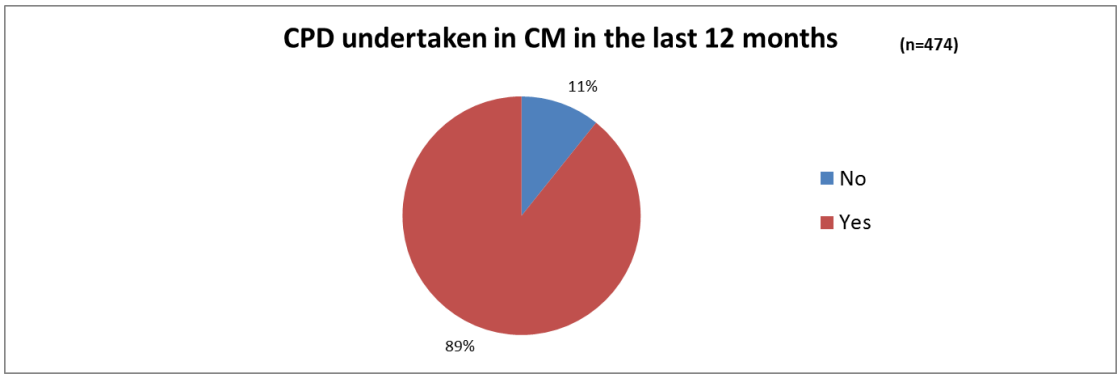


Clinical practice of CM in Australia, as reflected in these results, is a complex endeavour involving theoretical negotiation between CM and WM explanatory frameworks. And yet CM practitioners are also found to almost completely rely on CM theory in making their clinical decisions.

Professional development

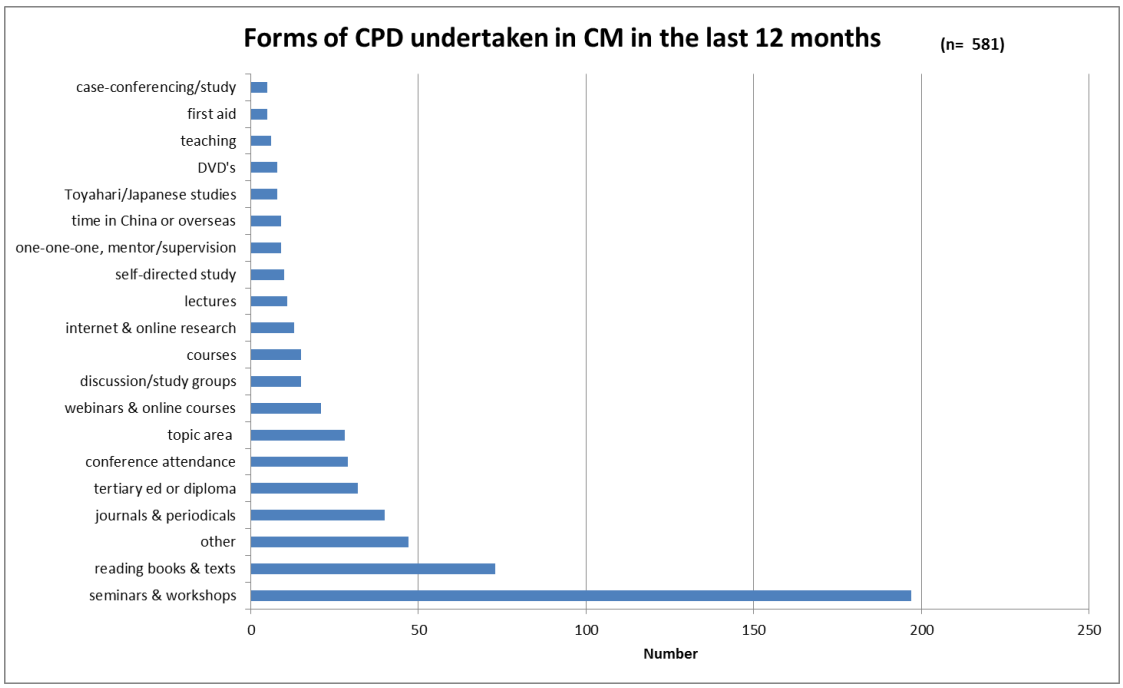
Nearly all respondents undertook some form of continuing professional development (CPD) over the 12 months. See Figure 5.28.

Figure 5.28 CPD Undertaken in the last 12 months



The forms of CPD most engaged in were seminars and workshops, and the reading of books and texts, journals and periodicals (Figure 5.29).

Figure 5.29 Forms of CPD undertaken in CM in the last year



CM practitioners in Australia reported themselves as occasionally to frequently discussing a number of clinical and professional issues with other CM practitioners. See Table 5.7.

Table 5.7 Frequency of discussions with other CM practitioners

Topic	Q. N	Never/ almost Never		Occasionally		In about half the cases		Frequently		Always/ Almost Always	
Difficult cases	466	29	6%	231	50%	46	10%	116	25%	44	9%
Patient referrals	444	87	20%	271	61%	30	7%	46	10%	10	2%
CM philosophy & theory	454	54	12%	236	52%	50	11%	95	21%	19	4%
CM practice	454	37	8%	235	52%	57	13%	105	23%	20	4%
Practice management	447	101	23%	230	51%	41	9%	63	14%	12	3%
Business development	445	137	31%	218	49%	37	8%	47	11%	6	1%
Marketing & advertising	437	132	30%	229	52%	34	8%	38	9%	4	1%
Professional development	448	64	14%	252	56%	47	10%	80	18%	5	1%
Further qualifications	441	132	30%	219	50%	32	7%	49	11%	9	2%
Registration requirements	445	136	31%	222	50%	35	8%	43	10%	9	2%
Professional association requirements	444	135	30%	228	51%	30	7%	41	9%	10	2%
Non-CM health care	439	88	20%	244	56%	43	10%	53	12%	11	3%
Other (please describe)	40	30	75%	8	20%	1	3%	1	3%	0	0%

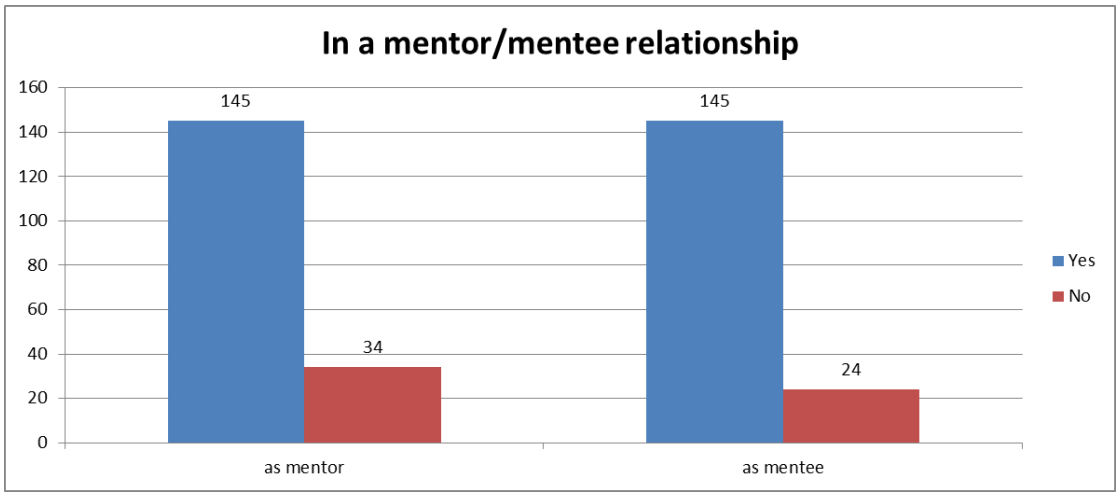
CM practitioners are also seen to be engaging in a variety of discussions with other non-CM practitioners, most frequently regarding difficult cases, patient referrals and non-CM health care. They also report occasionally to frequently discussing CM philosophy and theory, CM practice, and business management and development, with other non-CM practitioners. See Table 5.8.

Table 5.8 Frequency of discussions with non-CM practitioners

Topic	Q. N	Never/ almost Never		Occasionally		In about half the cases		Frequently		Always/ Almost Always	
Difficult cases	463	142	31%	254	55%	27	6%	32	7%	8	2%
Patient referrals	450	145	32%	252	56%	23	5%	26	6%	4	1%
CM philosophy & theory	447	174	39%	215	48%	26	6%	25	6%	7	2%
CM practice	444	178	40%	207	47%	31	7%	22	5%	6	1%
Practice management	441	203	46%	191	43%	31	7%	14	3%	2	0%
Business development	441	204	46%	184	42%	32	7%	20	5%	1	0%
Marketing & advertising	446	185	41%	206	46%	31	7%	22	5%	2	0%
Professional development	447	214	48%	189	42%	19	4%	20	4%	5	1%
Further qualifications	433	248	57%	155	36%	11	3%	15	3%	4	1%
Registration requirements	439	257	59%	152	35%	19	4%	7	2%	4	1%
Professional association requirements	440	267	61%	144	33%	15	3%	9	2%	5	1%
Non-CM health care	437	160	37%	190	43%	44	10%	30	7%	13	3%
Other (please describe)	53	43	81%	9	17%	1	2%	0	0%	0	0%

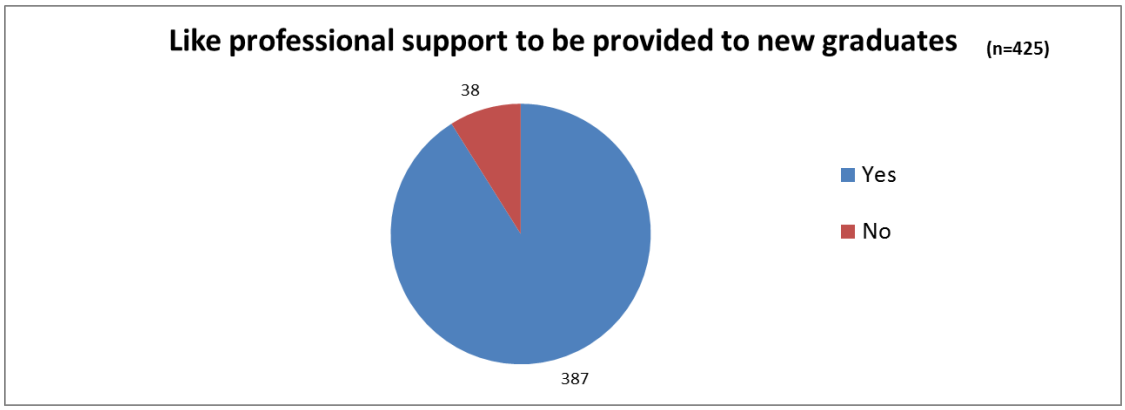
An equal number of responses were received to the question asking if the participant considered themselves in a mentoring relationship, as being either a mentor or a mentee. See Figure 5.30.

Figure 5.30 Respondents in a mentoring relationship



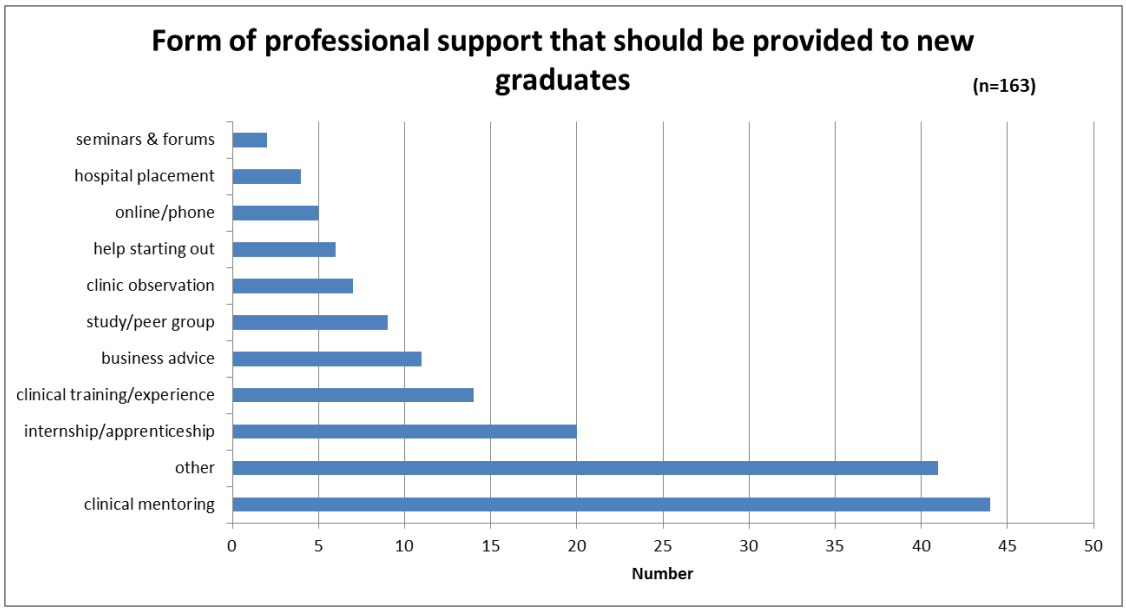
When asked if they would like some form of professional support to be provided to new graduates in CM, the overwhelming majority replied yes. See Figure 5.31.

Figure 5.31 Professional supports to be provided to new graduates



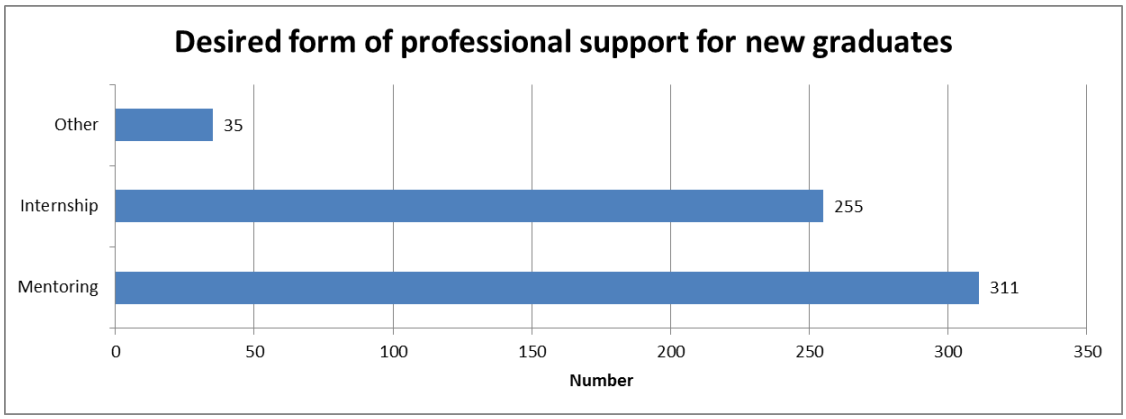
Those who responded yes were asked in an open question what form the professional support should take, and the quantification of the coded results of this can be seen in the following, Figure 5.32. Other comments here were varied and included suggestions such as, “Help with advertising and promotion”, “face to face”, a “buddy-system”, “anything”, and “This is desperately needed to improve our profession”.

Figure 5.32 Forms of professional support for new graduate



Participants indicated in a further question that they would like this professional support to be in the form of mentoring or an internship. See Figure 5.33. Other suggestions included study and discussion groups and business support.

5.33 Desired form of professional support for new graduates



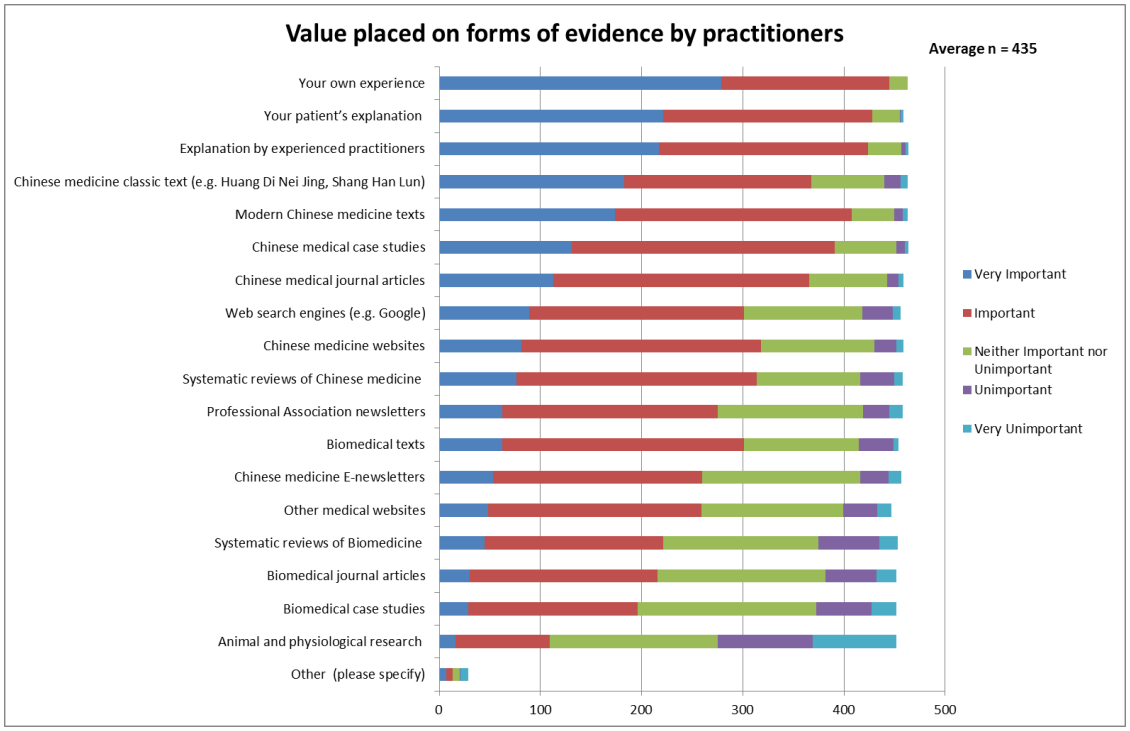
The results from this survey suggest that some form of transitional support from graduation into the early years of clinical practice, is strongly desired by CM practitioners in Australia.

Evidence in CM

Practitioners reported a number of sources of information as being valuable in their clinical practice. While modern and classical CM texts were valued, as well as CM case studies, CM journal articles and information from websites and newsletters, it was practitioners own

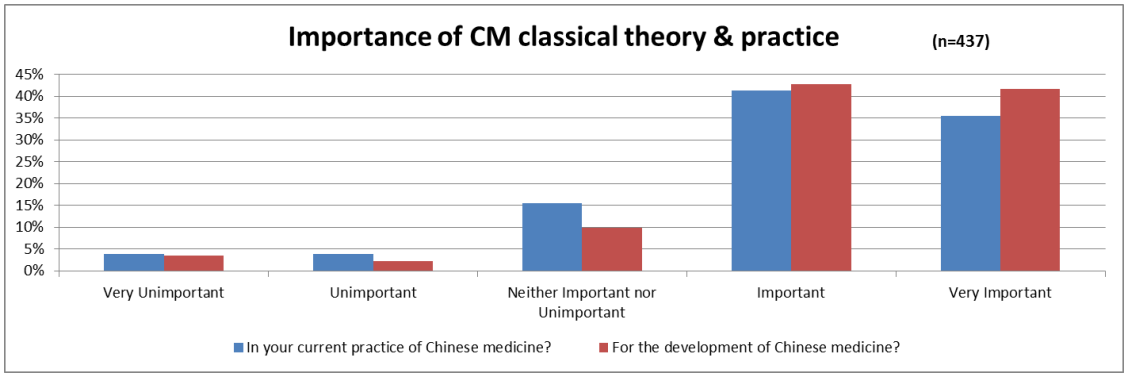
experience, the explanations provided by their patients, and explanations provided by experienced practitioners, that were the most highly valued. See Figure 5.34.

Figure 5.34: Perceived value of sources of evidence



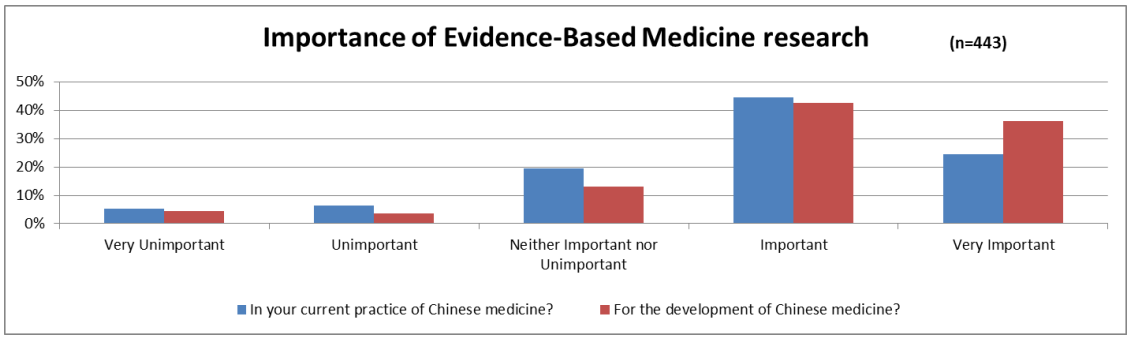
When asked how important CM classical theory and practices are to them, the vast majority of participants valued them as important to very important to their current practice of CM and for the future development of CM (see Figure 5.35).

Figure 5.35 Importance of CM classical theory and practices



At the same time however, the majority also said that they valued as important to very important the findings from Evidence-based medicine (EBM) research, in their current practice and to the development of CM. See Figure 5.36.

Figure 5.36 Importance of EBM research



The CM practitioner population can be seen here to value evidence from more than one epistemological system. This may have implications for how we discuss the future possibilities of medical practice.

Professional associations

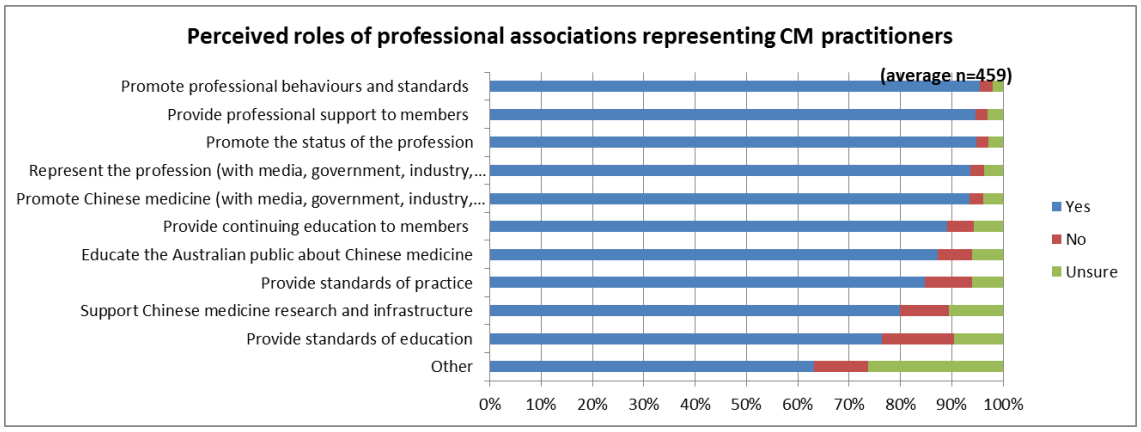
Respondents were members of a number of professional associations representing CM practitioners (See Table 5.9). Interestingly, 73 respondents (17%) wrote down that they were a member of the CMRBV. This is despite the fact that the CMRBV was not a professional association but the regulatory authority in Victoria at the time of the survey. This question potentially highlights the perceived confusion about the roles of the registration body as a professional association representing CM practitioners. 31% (n=129) of respondents reported that they were a member of two or more professional associations.

Table 5.9 Professional Association Membership

	AACMA	FCMA	ANTA	ATMS	Other
Number of respondents	197	57	176	47	84

As can be seen from the graph below (Figure 5.37), almost all respondents agreed that the roles of their professional associations include: to promote CM to the wider public, media and government; represent the profession and promote its status; and provide professional support to members. These results also indicate that practitioners consider it the least important for professional associations to provide standards of education and practice regarding CM. This may reflect awareness of the introduction of the national regulatory body and its legislated role in these areas.

Figure 5.37 Perceived roles of professional associations

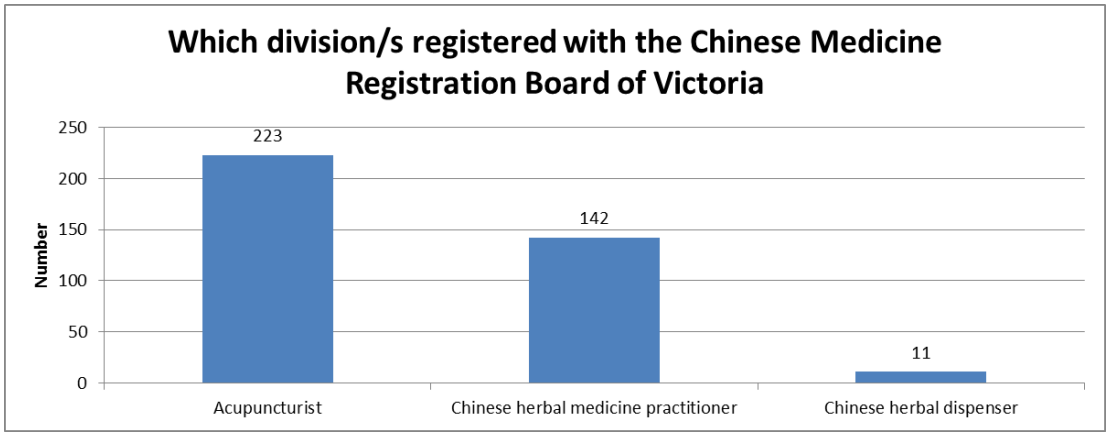


Registration

At the time the survey was distributed, just over half of (n= 241) the practitioners who responded were registered with the Chinese Medicine Registration Board of Victoria (CMRBV).

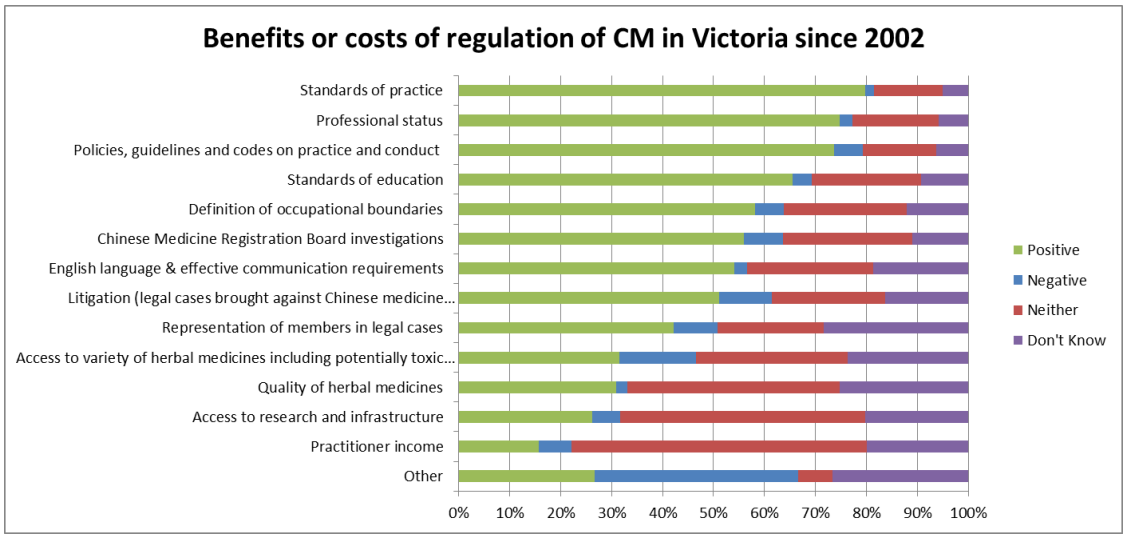
In line with CMRBV workforce data (25), most respondents were registered in the Acupuncturist division and/or CM herbal practitioner divisions. See Figure 5.38.

Figure 5.38 CMRBV Registration divisions (responses from Victoria only)



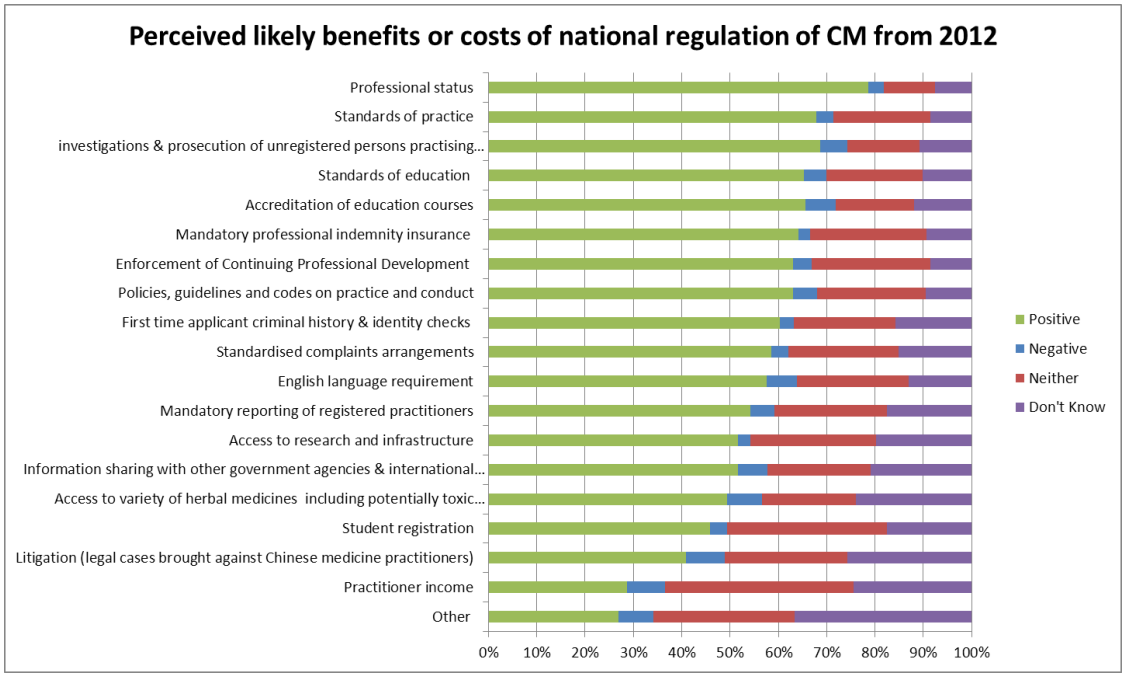
The practitioners in the state of Victoria felt that the regulation of CM there since 2002 had overall positively benefited many areas of CM practice, and in particular the standards of practice and the status of the profession (See Figure 5.39). Less frequently reported areas or issues affected positively by registration in Victoria were practitioner income, access to research and infrastructure, and the quality of and access to Chinese herbal medicines.

Figure 5.39 Victorian registered practitioners perceptions of regulation in Victoria since 2002 (responses from Victoria only)



As can be seen in Figure 5.40 participants largely perceived national registration as a positive development for CM in Australia, particularly with regards to standards of education, standards of practice, and contributing towards the professional status of CM.

Figure 5.40 Perceived likely benefits or costs of national regulation of CM from 2012

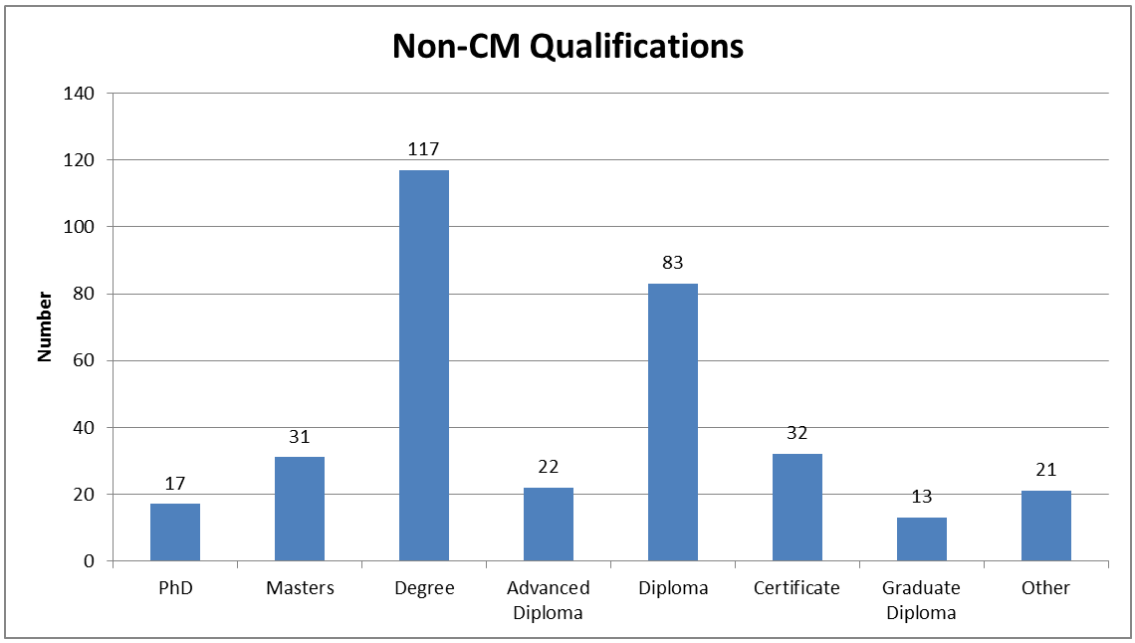


Education

Out of the total number of respondents to the survey, 34% (n=223) had undertaken education in other areas apart from CM. 135 respondents had one other qualification, 60 respondents

had two, and 28 had qualifications in three other areas. Of these respondents, 39% had two or more other qualifications. The majority of respondents had a degree level or higher in another field apart from CM (See Figure 5.41).

Figure 5.41 Qualification level in areas other than CM (respondents could report up to three other non-CM qualifications)



As you can see from Table 5.10, the areas of other qualifications included massage and shiatsu (n=48), nursing (n=36), and in commerce, business or management (n=25).

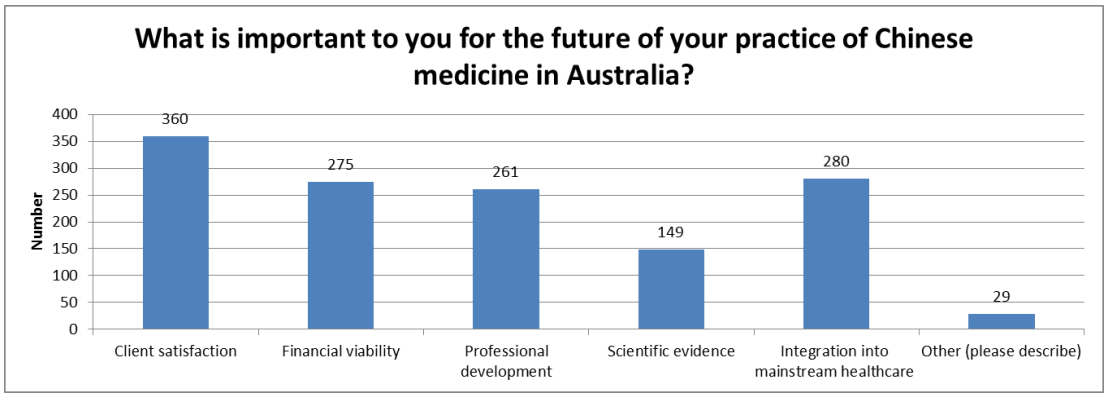
Table 5.10: Previous areas of other qualifications

Other qualification area attained	N
Massage & Shiatsu	48
Nursing	36
Commerce, Business & Management	25
Bachelor of Arts Degree	22
Health & applied sciences	22
Education	17
PhD	16
Science	16
Medicine & Medical sciences	12
Naturopathy	11
Languages	10
Arts & Social Sciences	7
Psychology & Counselling	7
Public & Community Health	6
Engineering	5
Herbalism	4
Tradesman	4
Hypnotherapy	4
Information Technology	4
Physiotherapy	4
Reiki Master	3
Ayurveda	3
Sports & Fitness	3
Reflexology	2
Osteopathy	2

The future of CM

When asked what is most important to their future practice, what was considered most important to practitioners was the satisfaction of their clients. This was followed by the integration of CM into the mainstream healthcare options, financial viability, and their professional development. See Figure 5.42.

Figure 5.42 Areas of importance for the future as reported by CM practitioners



While practitioners in a previous question reported the findings of EBM and research as important to the future of their practice and the development of CM, the relatively low importance of scientific evidence reported in this question suggests that practitioners may value other things more (see Table 5.11).

Table 5.11 Perceived importance of issues for CM in Australia

Issue	Q. N	Very Unimportant		Unimportant		Neither Important nor Unimportant		Important		Very Important		Don't Know	
Professional status	446	13	3%	2	0%	26	6%	139	31%	264	59%	2	0%
Standards of practice	447	9	2%	2	0%	12	3%	136	30%	286	64%	2	0%
Standards of education	445	9	2%	3	1%	16	4%	136	31%	279	63%	2	0%
Access to research & infrastructure	438	10	2%	9	2%	55	13%	172	39%	184	42%	8	2%
Practitioner income	438	10	2%	8	2%	43	10%	182	42%	189	43%	6	1%
Litigation (against CM practitioners)	435	12	3%	18	4%	108	25%	179	41%	90	21%	28	6%
Post-graduate education	437	10	2%	12	3%	93	21%	188	43%	131	30%	3	1%
Patient costs	439	9	2%	4	1%	58	13%	210	48%	153	35%	5	1%
Quality of herbal medicines	440	8	2%	0	0%	16	4%	122	28%	283	64%	11	3%
Access to variety of herbal medicines	435	7	2%	3	1%	29	7%	147	34%	234	54%	15	3%
Definition of occupational boundaries	433	12	3%	10	2%	72	17%	172	40%	151	35%	16	4%
CPD requirements	433	10	2%	8	2%	38	9%	219	51%	153	35%	5	1%
Integration into national health care registration	436	15	3%	14	3%	37	8%	115	26%	236	54%	19	4%
Inclusion of non-medical acupuncture in Medicare	436	21	5%	7	2%	38	9%	101	23%	248	57%	21	5%
Evidence Based research methods	434	17	4%	25	6%	72	17%	188	43%	124	29%	8	2%
Retention of new graduates	428	12	3%	11	3%	87	20%	188	44%	107	25%	23	5%
Professional culture and values	432	8	2%	3	1%	48	11%	178	41%	183	42%	12	3%
Promotion of the profession	435	7	2%	3	1%	15	3%	147	34%	257	59%	6	1%
Education of the public about CM	440	8	2%	5	1%	11	3%	135	31%	274	62%	7	2%
Accessibility of CM to the public	437	8	2%	4	1%	14	3%	128	29%	272	62%	11	3%
Translation of Chinese terminology	435	12	3%	19	4%	89	20%	196	45%	108	25%	11	3%
Preservation of CM philosophy & theoretical framework	431	6	1%	8	2%	30	7%	118	27%	251	58%	18	4%
Other	23	3	13%	0	0%	3	13%	7	30%	9	39%	1	4%

Participants perceived CM as different to other health care options available in Australia in a number of ways. The open-ended responses to this question lent themselves easily to coding and quantification and the results are seen in Table 5.12. The highest number of responses shown in the table indicates that participants see CM in Australia as: holistic in the ways it sees and treats the body; providing treatment results that are effective and long-lasting; and as safe with less side-effects than other forms of healthcare.

Table 5.12: Features of CM that differentiate from other healthcare options

Features of CM that differentiate it from other forms of healthcare in Australia	n
Holistic	122
Efficacious/long lasting	90
Safe/less side-effects	80
Philosophy & theory/ different paradigm	58
Preventative/ promotes health/ includes diet & lifestyle	56
Individual/personalised/client-centred	54
Time tested/history	50
Professional features	50
Natural/non-drug	48
Complementary/alternative to WM & other forms of healthcare	44
Time spent with patients/ practitioner-patient relationship/ consultation experience	40
Cost-effective/convenient	39
Diagnostic approach & treatment of disease	37
Techniques - acupuncture/CHM/etc.	31
Treats many conditions	30
Integrative/energetic – incorporates the mind/body/spirit/& emotions	28
Non-invasive/gentle	20
Treatment options/multiple modalities	19
Treats symptoms & root	19
Comprehensive & unique system	18
Treats chronic illness & complex cases	17
Inclusion in Medicare needed	15
Research & evidence base developing	14
Lack of public recognition & government support	13
Adaptive to change/flexible	11
Treats pain	9
Patient responsibility & education	8
Promotes balance & harmony in the body	8
Recognised	6
Health insurance	6
Registration	5
Chinese cultural aspects	5
Independent	4
Growing	4
Treats psychological	3

Participants who responded to the open response question asking what features of CM in Australia that they perceived as being different from the features of CM in China gave a variety of responses (See Table 5.13). This question was also coded like the previous question (See Table 5.12), and the highest number of respondents considered the differences in the clinical setting, regulation, and the lack of recognition of CM in Australia, as the most distinct features when compared to CM in China. Participants also viewed the hygiene standards, the locally applied features of CM in Australia, and it being private practice based, as further features of CM in Australia that most differentiated it from CM in China.

Table 5.13 Features of CM in Australia that differentiate it from CM in China

Features of CM in Australia that differentiate it from CM in China	n
Different clinical environment/more patient time/personal	59
Less accepted/recognised/respected	53
Regulation	52
Hygiene/safety/standards of practice	46
Culturally applied/local	34
Private practice based/not in hospitals/more time between treatments	31
Standards of education	31
Cost	27
Not sure/don't know	26
Government support/Medicare/insurance lacking	23
Diverse range of practice styles	23
Herbal regulation	22
Non-mainstream	20
Integration with WM & other modalities	17
Practitioner features – diverse backgrounds & skills	14
Secondary/complementary/alternative	13
More gentle	13
Less WM	13
Lack of professional unity & support from associations	23
More traditional	12
Accepted by public	12
Level of research/EBM	11
Limited practice scope – restricted & treats less diseases	10
Different treatments methods used	9
Lack of clinical training	8
Patients – high involvement, western	6
Accessible	5
The same	5
Professionalism	5
Treats less-acute conditions	4
Practice isolation	4

5.3 Discussion

Here I offer a preliminary discussion upon the key results of the CM in Australia survey. I will expand on this discussion in an overall discussion of the quantitative and qualitative results together, in Chapter 7. This survey included some questions (with permission) from previous workforce surveys carried out in Australia (see Table 5.1). This was intended to ensure the survey instrument was not only a more reliable measure of the CM practitioner population, but also to enable longitudinal analysis between these and future investigations. The results presented in this chapter closely reflect those results found previously (1, 25), with some important additions and differences. CM practitioners in Australia are roughly balanced between the sexes, mainly work in sole practice or multi-disciplinary clinics, and practice predominantly in both acupuncture and Chinese herbal medicine. These results therefore contribute to our growing picture of CM practice in Australia.

In line with the 2009 CMRBV workforce report (25), in which (27%) of CM practitioners reported seeing 11-20 patients per week, we also found that the largest group (30%) of CM practitioners reported seeing 11-20 patients per week. Similar distributions in work arrangements and practitioner age groups were found which also aligned closely with 2009 CMRBV findings. Compared with the 1997 *Towards a safer choice* study of CM practice in Australia, where 97% of respondents were found to make notes on consultations (1), in this study 95% of practitioners said they make patient notes frequently to always/almost always. Similar to the 1997 study (1) also, where it was found that 90% said they relied on a TCM philosophy and theoretical framework in making their diagnosis and guiding their treatment decisions, the results here indicate that 89% of CM practitioners do this frequently to always/almost always. Comparing these similar results suggests that the survey may be reliable and improves our confidence in the original findings presented here.

However results that require further investigation include, for example, the questions on adverse event reporting, where it was unclear whether this may be because patients rarely experience these events, or because practitioners are unaware of the requirement to report these events. In the open-ended question at the end of the clinical practice section, 21 participants made comments about adverse events, and as a result it may be concluded that there was some confusion about the definition of an adverse event on behalf of the participants who responded. Even though the question asked about 'reportable adverse events', a number of participants suggested that adverse events in CM may be understood differently. For example, one respondent wrote,

> ..some of the questions in this survey did not accurately describe all situations. For example, 'How frequently do you report adverse events to the TGA?' I said never because any adverse reaction my patients have had might just be that their back pain got worse before it got better, which I would not report. (REF_444)

This may explain the discrepancy in results between the two questions on adverse event reporting, as participants may have defined adverse events in CM in different ways. The feedback gained from these participants will help the construction of surveys of the CM workforce in the future.

This study adds to the documented evidence of an increase in education levels of CM practitioners over the last couple of decades shown by the CMRBV workforce surveys, which show that degree level or higher qualifications have increased from 45% before 1989 to 87% in 2009 (25). While in this study we did not solely investigate registered practitioners, we nonetheless found that 78% of respondents across the country had a Bachelor's degree level or higher qualification in CM. It was also demonstrated in these findings that CM practitioners often have a degree level or higher qualification in another field, suggesting that many practitioners come into CM with other skills, professional and life experience.

This study also builds on the information obtained from previous surveys done with CM students and new graduates regarding their perceived preparedness for clinical practice upon graduation (5) , and their experiences in the transition to practice after graduation (282) (see Appendices 4 and 5). Combined with the current study findings, these results give us insight into the experiences of new practitioners at this vulnerable time in their careers, when they are just starting out and finding their practical and professional feet. Investigations into this transitional period in other disciplines, such as medicine and nursing, have shown it to be a stressful and critical developmental time in the professional lives of neophytes (283). Importantly, this stage in a new practitioner's career in other more developed professions often occurs within a framework of internship, supervision, preceptorship, or some other form of transitional support. This is unlike CM in Australia, which as we have noted is currently in the midst of a process of professionalization, developing from small colleges in the 1970s to a recently regulated field of practice with tertiary education requirements. Features of postgraduate specialisation and sub-disciplinary professional colleges are yet to be institutionalised. Likewise, while being largely consumer driven the practice of CM in general is still becoming accepted in the mainstream healthcare arena, and CM is considered a

complementary therapy with little institutional support or employment from hospitals, larger clinics, government, education and research institutions.

What this means, and as we can see here, is that the now highly educated workforce of CM practitioners in Australia perceive themselves to be developing their practise and practising within a domain that in fact lacks the structural features to support their transitional and ongoing professional development, not only in their clinical skills, but in their abilities to set up and run a successful practice and small business. This is in line with a survey of chiropractors in the USA, who are similar to chiropractors and CM practitioners in Australia in that they are largely private practice based, where a significant need for more business and practice management skills was perceived (284). This research suggests that further inquiry into this next stage of professionalization must occur as a matter of urgency and to this end adds more evidence towards the argument for greater support and more formal ongoing education opportunities for the growing number of CM practitioners in Australia.

Other large-scale surveys carried out within the CM practitioner population have been few and far between. One study used a mail out questionnaire to investigate the use of research findings by acupuncturists in South Australia (285), which found that acupuncturists are favourable to the use of research evidence in their clinical practice and considered its integration as an important aspect of their ongoing professional development. This contrasts with a survey of registered practitioners in Victoria, which found that practitioners value the development of their clinical skills more than further education in research and information management (286). The results from the survey undertaken in this research may help reconcile these findings, because what we have found here suggests that CM practitioners not only value research evidence from EBM based studies, but that they also value evidence that is based in CM classical knowledge, which is largely derived from and applied in clinical practice directly.

The questions developed for this survey investigating CM practitioners perceptions of the differences between CM and other healthcare options in Australia, and CM in China, have uncovered meaningful categories for consideration. They suggest that CM practice in Australia may be differentiated from other practices and from CM as it is practiced in other countries, in a number of meaningful ways. The phenomenon of CM practice in Australia may be understood as uniquely situated within the Australian population, geography, society, and culture. Measuring the changing practitioner perceptions of CM practice longitudinally with this survey instrument will further enhance our understanding of CM in Australia.

5.4 Conclusion

In this chapter we have summarised the findings from the nationwide survey of CM practitioners in Australia, carried out in 2011-12. This was the first time CM practitioners were surveyed using both quantitative and qualitative measures. The demographic and workforce data obtained is in line with previous workforce surveys undertaken, which helps to validate the findings presented here. We have found that CM practitioners in Australia use a number of CM theoretical and practical approaches in their practise. While CM practitioners value and rely on CM theories and classical sources to a large degree, we have also found that they incorporate and value biomedical terminology and EBM research in their practice and for the future of CM. They can be seen to exhibit a number of professional behaviours, including referral and communication practises. Also, CM practitioners value and desire more on-going education, in particular some form of mentoring or internship for new practitioners. Another novel finding is that CM practitioners are found to perceive CM as different from other health care options in Australia, and CM in China, in a descriptive way. In the next chapter, we will present the qualitative investigation that formed the other part of this research, in which in-depth interviews with CM practitioners and key stakeholders were used to expand on the findings from this chapter.

Chapter 6: Chinese medicine in Australia – A qualitative study

This chapter will summarise the methodology and results pertaining to the qualitative enquiry carried out as a part of this work. Following the national survey, interviews were conducted in order to obtain more detailed perspectives from key stakeholders with Chinese medicine regarding the current and future state of Chinese medicine in Australia. The mixed-methods research design of this study allows for the qualitative interview data to complement the quantitative survey findings, as fewer interviews are needed in order to argue for representativeness in qualitative research. These data have provided a rich field of enquiry, where the areas and issues arising from the survey have been able to be explored in much more depth, and elaborated into meaningful themes. The results have a number of potential implications for our understanding of CM practice and professional structures emerging in Australia.

This chapter gives prominence to the participants, allowing them, as it were, to speak for themselves. Emerging from the interviews, three broad categories were identified for interpretation and all linked to the idea of their experience of being a CM clinician or key stakeholder. The first broad category centred upon the nature of CM practice, with subthemes relating to: the notion of evidence, the nexus between knowledge and practice, the transition from student to practitioner, and the importance of continuing professional development to practitioners. The second category regards the practice of CM in a western healthcare setting, and sub-categories centred around: the nature of education in CM, issues in negotiation and communication between CM and WM, questions of practice definition and boundary, and the perceived role of research in CM. Finally, in looking at the third category of CM as a profession, emerging subthemes include: perspectives on the history and development of CM in Australia, national registration – pros, cons and uncertainties, confusion around the roles of professional bodies, the need for professional support, and conceptualisations of the interface between CM and WM.

6.1 Method

The qualitative section of this work is grounded in the theoretical constructs of phenomenological and constructivist thinking, which emphasise the unique experiences of

individual realities and perspectives (287). Of particular methodological concern here is giving voice to 'the other', and acknowledging the 'lived experience' of the participants associated with and participating in CM in Australia, both of which are enabled through the use of in-depth interviews (288). Research methodologies based on these theories were chosen in order to contribute CM practitioner and key stakeholders experiences to the ongoing conceptualisation of CM. The theoretical underpinnings of qualitative research methods, such as discursive dialogues, emphasise the uniqueness of the perspectives of individual participants, while allowing them to be represented in a manner consistent with the natural descriptions participants would employ themselves, and at the same time acknowledging the active influence of the researchers. These theoretical ideas, found in phenomenology in particular, closely parallel key conceptual constructs of CM. According to the method appropriate to a concurrent mixed-methods research design, the qualitative and quantitative data from the survey and interviews have been analysed separately using analytic techniques appropriate to that domain, and with the quantitative and qualitative results being presented separately and then discussed together (281). While preliminary discussions of both results sets are presented within this and the previous chapter, a final discussion of the entire work is offered in the next chapter, Chapter 7.

Sampling

Participants for the interviews were recruited through the *CM in Australia survey* (where respondents indicated their willingness to be interviewed in Question 68 – See Appendix 2), and through purposive sampling of key stakeholders and practitioners. Key stakeholders were those considered to hold an important role in the field, such as in education, research or regulation, or who have played an important role in the development of CM in Australia. A purposive sampling strategy with practitioners was used in order to improve the rigour and trustworthiness of the research findings and triangulate with the survey results (288, 289).

Data collection procedure

All interviews were digitally recorded, de-identified and confidentially transcribed by the author. In order to guide the semi-structured nature of the interviews a schedule of questions was developed by the research team (the author and two supervisors) based on the eight survey dimensions (clinical practice, professional development, evidence in CM, professional associations, registration, the future of CM in Australia, education, and demographics) and was checked with key academics in the field for rigour and clarity (See Appendix 2). Participants who volunteered to be interviewed in their survey response were followed up either by phone

or email to determine their interest and availability. In completing the *CM in Australia survey*, 136 people indicated their interest in being interviewed. However, due to incorrect contact details, lack of reply, or an inability to find a mutually convenient date and time for the interview to take place, the number of potential participants from the survey reduced as the interview phase progressed. Nine potential participants either declined to be interviewed, did not respond to the invitation to be interviewed, or were not interviewed because a convenient time could not be arranged. Interviews took place at times and in settings convenient to the participants, which if the interview was done in person was either the participant's workplace or clinic, or a nearby café. Due to the small nature of the field and the purposive sampling of key stakeholders undertaken as part of the aims of this research, a small number of participants were already known to the researcher, and this may have affected the data collection phase. As a result, these participants may have been less likely to divulge their true attitudes upon some topics, particularly relating to confidential or sensitive areas. On the other hand, as interpersonal rapport and level of trust was already established with those participants, it may be argued that more and better quality data was able to be obtained. Interviews ceased being conducted when saturation of themes were determined to be reached.

Data analysis

Qualitative data from the survey and the interviews were analysed using thematic analysis, a common technique in qualitative research (288), with the support of the qualitative software NVivo10. Grounded theory method, which is based on phenomenological thinking and emphasises the identification of categories and concepts within data in order to support the construction of claims, underlies the thematic analysis methodology employed here (281). Thematic analysis was carried out using the method suited to a 'concurrent design', whereby themes arising from the data were systematically coded and categorised (281). Areas of convergence, divergence, explanation and contradiction were focused upon within the data itself, and with regards to the eight survey dimensions, in order methodologically to develop themes and categories. Coding was data-driven and organised into hierarchies in order to explore the emerging themes (290). The primary methodological concern was with the saturation of themes, which was achieved through the purposive sampling of participants from the survey respondents and key stakeholders in CM until saturation was obtained.

In line with current recommendations (281), the rigour of the analysis was supported by having the results 'checked' by the research team, who reviewed the first four transcripts and

discussed the emerging codes and themes. Regular meetings with the research team during the data analysis occurred and discussion continued until agreement over the main codes and themes was reached. A regular meeting also took place between the author and a CM academic who was outside the project, where the emerging themes and their interpretive meanings were further explored. Further credibility and dependability of the results was also obtained through the use of 'member checking', whereby the results of the interviews were shared with four of the interview participants and their perspectives and feedback upon the interpretation of the data were sought.

6.2 Results

Twenty nine semi-structured, in-depth interviews were carried out with participants from four of the eight Australian states and territories: Queensland; New South Wales; Victoria; and South Australia. Twenty three interviews were obtained in person, with six done by telephone. One interviewee asked not be recorded, and the data from this interview were therefore analysed using the detailed notes taken by the researcher during the interview. Due to the small nature of the field and the risk of participant identification, particularly towards the key stakeholders who were interviewed as a part of this research, only general demographic information is reported. The interviews took place over between 20 to 90 minutes, with an average interview taking 45 minutes.

Table 6.1: Interview participant demographics

Demographic	Number
Sex	Male: 13 Female:16
Age range (approximate in years)	20-29: 3 30-39: 8 40-49: 11 50+: 7
In clinical practice	Yes: 23 No: 6
Years in clinical practice (approximate)	<5: 5 6-15: 7 >16: 11

Table 6.2 CM in Australia – Nature of practice and perspectives of practitioners: Results summary

Three Major Areas of Concern:	Main Themes: found in all three areas	Sub-themes: in all main themes
1. Nature of CM Practice **- Empirical description of CM - diversity of practice** **- Evidence: tension between research and classics** **- Transition to practice and business aspect** **- Why study and practise CM - personal experience, philosophy** **- CPD: valued, recognised as ongoing and related to practice**	Continuity and Change Classics and Research	Diversity and Difference Commonalities and Similarities Ideas and Implications
2. CM within a western healthcare setting (Australia) **- Negotiation and communication between CM and WM and other health disciplines** **- Questions of definition and boundary** **- Perceived role of research** **- The nature of education**	Structure and Flexibility	
3. CM as a profession **- Historical: institutional/regulatory changes** **- National regulation: pros and cons, uncertainties** **- Role of professional bodies: CMBA & associations – confusion** **- Professional support – transition and development of professionalism** **- CM and WM: perceptions of relationship**		
	→ Conceptual and structural refinement of CM practice in Australia **→ Implications for how we think about medicine** **→ Further research questions**	

6.2.1 Nature of Chinese medicine practice

In this section, we will explore the main themes emerging around the nature and experience of the practice of CM, as described by the participants. CM practitioners may be found to practise in a number of different ways, drawing on a diverse range of theoretical and practice constructs which provide structure and flexibility for practitioners in what and how they may treat individual patients. Despite the wide range of approaches to CM practice, CM practitioners are found to be especially concerned with achieving clinical results and maintaining the integrity of the practitioner-patient relationship. To this end, CM practitioners can be seen in the clinical process to be incorporating and reflecting upon not only the patient's perspective, but also their own. This reflective activity extends to the discovery that the decision to study and practice CM was often highly personal.

Further findings in this section include that practitioners often experienced difficulties in their successful transition to clinical practice. This may have implications for the developing structure of the profession. Nonetheless, practitioners are seen to engage in professional behaviours such as professional communication and referral, and they report valuing their continuing professional development highly. Another finding with potential implications for the development of CM is the unresolved tension between the use of classical evidence and modern research outcomes as discussed by participants, with practitioners exploring novel ways to reconcile this tension.

Description of CM practice – diversity & difference, structure & flexibility

In practitioner's descriptions of their CM clinical practice we find a diverse range of theoretical, practical, evidentiary, and professional structures enacted, that may give us an idea of the level of flexibility occurring in CM clinical practice. Practitioners reported practising in a variety of clinic settings and using a number of theoretical and practical modalities, including: acupuncture; Chinese herbal medicine; cupping; Moxibustion; Gua Sha (scraping); Qi Gong (Chinese exercise therapy); and Tuina (Chinese massage). This is reflective of the diverse internal nature of CM, which encompasses a number of systematic theories and treatment styles described earlier in chapter 2. Practitioners were found to be seeing a diverse variety of clients characterised by many nationalities, ages and both male and female, and are treating a large range of conditions. The following is an example of the practice descriptions offered by participants, and emphasise the broad nature of CM practice:

My practice is traditional CM practice. I specialise in fertility and obstetrics, and umm, have a lot to do with, mostly women, but I have found that I have a lot of men lately, like with a lot of sperm issues. So I do see a lot of men as well, umm, which is starting to increase in the last couple of years, seeing men other than just musculoskeletal problems. (IN_008)

As well as treating pain, musculoskeletal and gynaecological conditions, practitioners reported being capable and interested in treating a variety of other complaints, and treating more conditions than just the patient's initial presentation:

Umm, it kind of varies, I mean the area which I am sick of treating, I get most of, is lower back pain and musculo-skeletal stuff and I think umm, one of the things about awareness is trying to get the public to realise that we can treat other stuff. Umm, menopause and premenstrual tension and labour induction and that's the area that I really enjoy, and that's area that I want to push more. (IN_024)

Acupuncture

Acupuncture was a major modality for most practitioners interviewed. Perceptions of acupuncture practice were diverse and meaningful, suggestive of the importance practitioners place on client's perceptions and positive outcomes. For example,

I know that what I am doing is therapeutically positive. Because if you take pain away, we would agree, that's therapeutically positive. So I know, and not only I know, but the patients know, oh gee that was really different, that was really sore before, and it's not really sore anymore, that's good. And then they start to understand their own body in a different way. And that's the radical nature of acupuncture. (laughs) Because it Is radical medicine! (IN_011)

At the same time as being considered a 'radical' approach to medicine, acupuncture was viewed as 'time-tested':

As I say just try to keep things simple, use the basic points to start with. Um, which seem to be main sort of dozen or so points that everyone uses, just cause, again they've been tried and proven methods. (IN_016)

Despite stable features such as commonly used acupuncture points, the ability for acupuncture practice to be flexible and accommodate change was a key feature for many participants in describing their practice:

Acupuncture, it's usually a lot more flexible than herbs, how you treat them then, and then you apply the treatment, and then you assess the outcome, and if it's working you continue until you need to change, and if it's not working you adjust it until they start feeling better. (IN_014)

A complex feature of acupuncture is that its practice is varied and includes many styles and techniques. It may be based on a range of underlying theories, including five element and various CM theories. The negotiation of these emerged as being in the forefront of many practitioners, which will be discussed more later in this chapter.

Chinese herbal medicine

Chinese herbal medicine (CHM) was prescribed in a number of forms (pills, patents, granules, liquids, raw), and they were viewed as comprehensive and effective, especially for more internal and long-standing complaints. Herbal medicine was often used in complementing acupuncture therapy, as this quote illustrates:

I am trained as a herbalist and I will give herbs in an adjunct capacity if required. I do a lot of work with fertility, natural fertility and support for assisted IVF patients. Umm, and so depending on what protocols are, and where they are, I will use herbal medicine, but it's not a, it's not the primary focus of my practice. (IN_011)

Overall the practitioners interviewed said they felt CHM was a large area in which there was much more for them to learn.

Complexity in clinical practice

Participants expressed an appreciation for the flexibility, scope and potential depth which they felt their practice could attain, acknowledging the complexity of clinical encounters:

I always like when people come with one thing, so, like, say, a shoulder problem or a lower back problem and then they actually realise that it's about so much more and they keep coming back because of the added benefits of how they actually feel after a treatment. (IN_017)

This ability for CM to treat multiple signs and symptoms, and components of a person was seen as a reflection of the power of the CM system:

In Chinese medicine you can make anything - you can connect anything depending on where you're coming from. You can - there's no - you don't always have to - yeah, there's no delineated start point. You can start with the signs, start with the symptoms,

you can start with the history, you can start with the results of other treatment. Yeah, it's very flexible. I can see why it can be so different. (IN_018)

The flexibility enabled by the underlying construction of interconnectedness at the same time allowed CM practitioners to view their practice as individualised.

Individualisation & the practitioner-patient relationship

Practitioners of CM recognised and appreciated the individual nature of their practice and their patients, and the need to take into account the unique nature of each patient, within the CM framework. The importance of the nature of the practitioner client relationship was repeatedly emphasised, and while not always fully understood by the practitioner, appeared to be valued almost as much as the systematic justification, within the clinical decision-making process. This is illustrated with the following quote:

Yeah, because you can be intellectually correct, and, theoretically the system says if you've got the right diagnosis and you've got the right treatment principle and you select the herbs consistent with that diagnosis, notwithstanding there's many ways to get to the top of the mountain, you should get a result. But, I think, there is another component that you can't quantify which is the connection between the client and the practitioner. So sometimes, I will see, especially say a new client, and even though I've gone through and I am clear about the diagnosis and I am clear about the treatment and I am clear about what I've prescribed, I've done the acupuncture, I've done the herbs, I get a feeling. I don't think they connected, I don't think we connected, I'd be surprised if they follow up, even though I know what I've done is right. (IN_022)

This aspect of medical care and the recognition of the many variables involved in the interaction with patients, and the influence of these on the outcome appeared to be consciously acknowledged by CM practitioners. These components, often categorised under the blanket of the placebo effect in other conceptualisations of medical care, were valued and intentionally activated by CM practitioners in this study, who talked about the importance of establishing patient trust and positive rapport. CM practitioners saw themselves as congruent in their practice of CM and their provision of individualised patient care, often instead considering a standardised approach to treatment as inferior in terms of effectiveness and patient satisfaction.

The nature of practice as being complex and including many elements to be continually evaluated within the evidentiary structures provided by CM emerged. Appreciating the

individuality of each patient, and being comfortable practising within a constantly changing state of uncertainty – the result of a myriad of potential clinical factors to consider and the acknowledgement of change was discussed repeatedly throughout the interviews. Practitioners varied in reporting their relative and evolving states of ease with these phenomena:

> *Yeah, absolutely, and I think that's what acupuncture is about, you're in this kind of moving, uncertain place. I think that's what makes it so interesting, otherwise it would get very boring, very quickly. (IN_015)*

The importance of treatment outcomes

By far and away the primary concern of practitioners was attaining beneficial treatment outcomes for patients, with much less concern being placed on how that outcome was attained or measured. Outcomes within the CM explanatory framework, as we have discussed, may be quantified and explained in many, many ways. The patient's report of the experiencing some kind of improvement was heavily weighted. Illness was therefore ensconced in a sensorial acknowledgement of the multi-faceted experience of living and in an individual's respective phenomenology.

It emerged that effectiveness was measured in reference to patient report, and practitioners appeared to rely heavily on this aspect of CM practice in determining the success of their treatments:

> *What I see or what I understand about theory, is that theory is great, theory is wonderful, but if theory doesn't work, what relevance is it? It has to work. And what I appreciate about acupuncture, and about hands on healing modalities, in fact all medicine, but, but you know, I guess there are other forms of medicine that don't really put hands on bodies anymore. But if you want to be effective, if you want to be clinically relevant, then, what you are doing has to work. You have to either be at the end of the session your patient goes, yeah, that feels better, or I can feel something has changed, if only so they trust their own process." (IN_011)*

The importance of including the patient's perspective in the final evaluation of the clinical outcome, indeed the entire clinical process of transformation itself, cannot be overemphasised. A participant put it as such:

> *But yeah, I guess we all get pulled into line by results. That's what matters in the clinic because we know once you're in practice people only give you a chance for so long. Its*

few people or few patients that are really patient with you and really do come back. Most of them you've got to set a - I find - I've learnt that I do like to set a time frame, but hopefully I've allowed them to see stepping stones along the way and I'll look for that every week. Half the time I'm looking for proof that my - for myself, but also for them, so that I can show them we are getting somewhere. (IN_018)

This finding alludes to the deliberate and critically reflective nature of CM practitioners in Australia, at the same time as it suggests that the patient is ascribed an inherent empowerment over and within their individual experience. CM practice may demand that the practitioner account for multiple variables, constantly alternating between the critical 'medical gaze' and yet at the same time allow for the inescapably qualitative patient experience. The patient, and the practitioner, are ascribed a fundamental right to their autonomous experience within the framework of CM. This however, may be a notably western interpretation of CM practice.

Patient engagement

While practitioners can be seen to be continually assessing and refining their treatment approaches and outcomes, this is extended in the finding that an emphasis on patient responsibility was also strongly reported. Practitioners said that a level of patient engagement was a required factor in order for a successful result to be achieved. This may be demonstrated in the following case:

And some people, like, one in particular that I'll talk about, he was, had sinus congestion and a post nasal drip, and he was overweight, so I was treating him for that, mainly. And I was giving him formulas to try and clear the phlegm, [..] and asking him to modify his diet and to improve his exercise. So I'm giving him the er chen tang, but he's not modifying his diet, he's still having loads of you know, cheese – he wants me to fix him, he doesn't want to take the responsibility for his own actions. So in the end I just said, well I think you'd prefer your condition, to change, so there's not much I can do. You know, if they're not on the same page as you and they expect you, it's too much, you can't do it by yourself. They have to be part of the healing process. They have to take responsibility for their health, and they have to modify, you know especially diet related, and his was. So then you know, in the end, you just say I can't really do much for you. Yep. He's not willing to change. (IN_012)

As can be seen, practitioners see themselves as working alongside patients to achieve their ideas about health. Patient consent is continually elicited throughout the treatment relationship, which is seen to be evolving and necessarily encompasses change.

Professional behaviours

In service towards the achievement of beneficial outcomes for their clients, practitioners were found to be engaging in a number of professional behaviours, including ongoing seeking out of information and referral to other practitioners, such as the patients general practitioner (GP).

> *Although I predominantly use Chinese medical philosophy to diagnose and then treat patients, I do also name a biomedical disease and refer if necessary for medical tests and to ask patients to return to their GPs for medical treatment. (REF_033)*

A key finding was this high level and range of professional behaviours engaged in by practitioners. Practitioners discussed referring their patients to a variety of other health professionals, undertaking further research in CM and other fields, and engaging in professional communications, such as letter writing and providing information about CM to their patients and other health care providers. This feature, of attempting to practice within the boundaries of the CM theoretical structures and practices while establishing and maintaining successful communication with Australian patients and health care providers, will be expanded on further later in this chapter.

Evidence used in clinical practice: classics & research; commonalities & similarities

A notable theme in CM practice that emerged out of this investigation was that of a tension between the value of evidence from CM classical texts, and the use of modern 'western scientific' research findings in practice. Practitioners recognised the importance of finding common ground between old and new, CM and WM, approaches to healthcare, but at the same time realised that while similarities existed, their complete elucidation was still a difficult matter. As one practitioner explained:

> *Well, I use research, and I take it with a grain of salt. Yeah. It's weird you know, I used to try and use it for, I've got someone with this condition, I'll try and look up and see if there's a paper to see what points they used, but, it's better with acupuncture to umm, use an approach and say, using this approach, how would I treat this patient? And I mean that's just one of the troubles with acupuncture, umm, evidence-based acupuncture stuff, I mean yeah we use these points ST36 and Colon 4 and [..] it's like you probably wouldn't do it in practice because umm, I mean it's one of the things*

about CM, you've got five people with lower back pain, they're all very different. When you see them they are all very different, you'd approach them all very differently. Some of them are deficient; you just wouldn't use that with the big robust football player. Yeah, so it's thorny. It's difficult. It does, it's good for our profession to have papers coming through. I think for the wider health community, but it's not necessarily how we practice. But you can't shout that from the rooftops (laughs). (IN_014)

The importance of the link between research and practice, and theory and practice, was a recurring theme. Again, we see the emphasis on the achievement of individualised treatments and clinical results. Research findings are valued and incorporated into clinical practice as much or as little as they are determined by the practitioner to service that end.

The information from classic texts appeared to be directly related to the experience of clinical practice, and therefore highly valued:

Yeah, it's just a logical way of putting things together for me to, I have nothing against any other system, I think they are all fantastic, it just seems to be the thing that works for me, and it's a kind of paradigm that as I said, I like that principles base, so I like to have just one little solid foundation I work from and that seems to be that Han dynasty thinking. (IN_006)

There was a strong reliance on sources of evidence that were seen to be rigorous and tested over years of use in CM clinical practice. This finding aligns with the survey results, where respondents also reported valuing highly evidence from experienced teachers. Sources that offered compilations of CM evidence over the years were also considered trustworthy by practitioners.

Differing views & adaptations towards research in CM

A perceived disconnect between the forms of evidence upon which CM has rested (experiential and peer evidence) and western scientific research findings on CM was evident. Scepticism towards western scientific methodologies was voiced. Many practitioners emphasised their belief in the greater validity of the longer-standing sources of CM knowledge.

On the other hand there were many interviewees who were very open to the investigation of CM through research methods, seeming to recognise the changing terrain of disease and wellbeing. Practitioners talked about a variety of deliberate responses to the dissonant nature that they perceived currently existing between the information presented in CM classics and findings from scientific research. For example, here you can see the dialectic chosen by the

practitioner between the extremes of pure demonstration of outcome versus communicating about CM in a western medical sense.

> *There is meaning, but essentially all the patient wants is the effect. So it doesn't matter how you explain it to them provided that you explain it to them in the best way that you possibly can. I personally choose to explain it to them in plain English. I won't use Chinese medicine English, to explain a term. I won't say, well your liver energy is stagnating that's due to stress and this is the effects that the liver energy has, and we're not really talking about your liver, I'm talking about the liver energy. I don't talk like that. If I am going to refer to the liver I will refer to it in context, so if the liver qi becomes stagnated due to stress then I will refer to how the emotional stress is having an impact on their digestion for example. And instead of saying Spleen and stomach I will say digestion. (IN_021)*

The participants often expressed a clear engagement with western medical terminology and research findings in their practice.

> *Um, well CM texts, but also WM stuff as well, Mercks manuals and um, pharmacology and stuff like that. So often if they say they are on a drug or they've got some particular illness, like sarcodosis or something, I will kind of look into that and then yeah, try and put that into some sort of context. (IN_008)*

Practitioners demonstrated a number of innovative solutions to their understanding, communication, and practice within the environment, of this tension between CM and WM understandings of the body and disease. This feature of CM practice in Australia, as being composed of a highly sophisticated interplay between CM terminology and WM language and concepts, is a recurring issue emerging out of this research. The resulting discussion may have implications for the way we view not just CM practice, but also other medical practices, as we seek to synthesize and integrate more practices and information in order to improve health care.

Experience is highly valued

In relation to the way they perceive their own style of practice, practitioners clearly stated that they valued evidence from teachers and their own experiences in practice, extremely highly. For example:

> *So it's, that's where I've got most of the knowledge and information I value the most, is through those relationships, through the direct transmission of somebody saying, I've*

had experience doing this, this works, try it and see. Oh yeah, it does work, that's interesting, why does that work? And so then you read more or you ask questions of people or you, ask your colleagues and you think why do you think that might work? Umm, and that's where somebody who might of written a book, who's given you some theory, might be of interest, once you have the question. (IN_011)

Again, we can see that the successful application of this experiential knowledge in the achievement of patient outcomes is the desired end for CM practitioners. But we can also see here an interplay between teacher and student, evidence and practitioner. The practitioner is not a passive recipient of knowledge, but rather deeply engaged in the process of interpreting, understanding, applying and assessing the knowledge obtained. And while often they reported being somewhat comfortable with not entirely understanding how a treatment outcome may have been achieved, if they did not feel they had the necessary knowledge or skills they were more likely to seek out further information from a number of respected sources before feeling comfortable to act within the clinical environment.

Yeah I treat them from a CM point of view. Yeah. I mean, you know, of course if I don't know what it is I will go and look it up, but you know, you always take them from CM point of view. And, and if it's really complicated and they are on a list of medication, I will be reluctant to give them a herbal formula until I know exactly what they are on. So initially I might just give them acupuncture and then, research it, and when they come back next time they find out you know the herbs I want to give them [and any] interaction with the medication they are on. Then um, yeah that's how I work. (IN_012)

This negotiation demonstrates what could be argued as high levels of various professional behaviours, related to medical-decision making. These include: being able to recognise what they do not know; critically reflect upon this; undertake further research; assess the treatment options; and consider the multiple possible treatment implications.

The interaction between CM and WM understandings of the body and its treatment can also be seen to be ever-present in the minds of CM practitioners and their practice. WM scientific methods and investigations were clearly valued by practitioners in addition to CM canonical texts. However, CM theory, methods and practitioner and patient experiences were always valued more highly. There was also epistemological room for intuition within CM clinical practice.

As mentioned before, there was more to clinical practice than just the application of a theoretically correct decision. Practitioners relied on theirs and others clinical experience and elements of reflective practice to a seemingly great extent in their treatment decisions and further clinical professional development. This is reflected in the following quote:

> *Straight after graduation my approach resembled very closely what I was taught in uni (TCM). With experience and further study, it has become more eclectic and I would expect this will continue - very experienced practitioners have a highly personal style and methodology. So much of what they do has become second nature and informed by their own experience that they would barely be able to articulate how and why they arrived at their treatment approach. (REF_004)*

Another practitioner talked about the nature of intuition as being based in experience and reflection:

> *I think that's what happens. You learn stuff, you do, you reflect on it, and that becomes your pool of experience that you can draw on. And I think that's what actually nourishes your intuitive kind of approach because then you've got this pool that just is sitting there, you know. And it might be, I always think it's interesting with practice where it might, you might go, I think everyone goes through little phases. So you might go through a phase of doing open hourly points, you know, but because of doing that phase early on, you might find yourself ten years later, being with someone where all of a sudden you think, ah, maybe I should look up the open hourly point for this person! And then getting a great result because you've, you know, you're drawing on your experience and again, reflecting on it and using it in a slightly different way. But it all adds to your experience. (IN_015)*

From this frame, the use of intuition in clinical practice is perhaps not necessarily to be disregarded and devalued, but rather enabled through the accumulation of knowledge in the clinical field over time. The accumulation of experience and its relation to CM was aspired to among the practitioners interviewed. Overall practitioners who had many years of clinical experience were highly revered by newer practitioners and were often sought out for their clinical knowledge.

Why study & practice CM – personal experience & philosophy: ideas & implications

Practitioners described their introduction to CM and their decision to enter into study often as one of a philosophical and yet intensely personal nature. The insights that follow may help us

to reconceptualise CM and medical practice as much more than just an exercise in the objective. Practice and the philosophies underlying it are not just abstract concepts applied in a routine fashion, but actively engaged with and interpreted. As one participant stated,

> *To me it just feels like, yeah, to me it's almost like common sense. It just makes absolute sense, that everything's connected, within the body, and within the universe, and beyond. So to me, it just makes sense. And you know the meridians are all connected and everything's connected. So for me, I've got a real connection because we're all connected! (laughs loudly). [..]To me I totally have engaged with it and you know, I just want to keep knowing more and appreciating more. (IN_012)*

This underlying belief in the inter-connective nature of existence was a philosophical feature of CM that was highly attractive to many practitioners in this study.

Decision to study and practice CM

Interest in the ideas inherent in CM was often an important factor in the decision to study CM, however there were also those interviewed who had had experience with a chronic, unresolved illness, or had a close family member who had used CM and received significant and ongoing relief. An example of the personal relation to CM in the decision to study is demonstrated through this practitioners' story:

> *But I got there by experiencing Chinese medicine when I had poor circulation, and I was getting gastro-intestinal, stomach complaints, abdominal pains. My GP wanted to send me for a barrage of tests and everything, and a friend - I was seeing a kinesiologist through a friend's advice, and this kinesiologist recommended a Chinese medicine doctor. I stuck it out with him for six months to a year, but I noticed improvements. My skin cleared up, my circulation got better, and I just thought there's definitely something to it. My abdominal pains went away, my digestion got better, less bloating, gas, all that. I experienced it first hand and I saw there was something to this. The opportunity came down the track to actually go and study it. (IN_018)*

Others were attracted to the philosophy and ideas of CM that they were exposed to in various ways, such as through martial arts or while doing other study. Often there was a sense of 'serendipity' surrounding their exposure to CM, a feeling that it 'just felt right' and they 'wanted to know more'. For example, one participant said:

> *I've always had an interest in the body. I am a long time student of the martial arts, so that was sort of where the eastern philosophy interest came from, and yeah, it all just*

made sense when I saw that that I don't have to go to China to learn that. That's for me! (IN_006)

The feeling of 'just making sense' was a repeated theme, as well as experiencing a sense of calling to enter CM:

There are a number of things that happened that at the time when looked at by themselves, just happen to be instances that would've happened in your own life, and, you would've glossed over them. But having looked back, it seemed as if those things almost had to happen before I got to the stage where I thought, now I am ready to start doing this thing called acupuncture. (IN_021)

This sense of coming to CM as a vocation or life's work, was sometimes described as a physical response, but was also described as a feeling of excitement and enthusiasm towards wanting to learn more and practice. One participant described:

I was sitting in the classes, and the teacher would say something, and my body would go, yes! Not my head! (IN_022)

As well as a direct personal experience of CM, many participants could be seen to be attracted to the possibility of working in an area where they would be able to continually be learning.

So yeah it was just the first-hand experience of the healing property of it that just kind of blew me away, it was like wow if it works like that imagine doing that for a living. Also I suppose it was important to me that if I was going to change my career path at that point that it had to be something that was going to hold my interest for many years and that there would be lifelong learning. (IN_023)

This finding was balanced out by the admission from a handful of participants who talked about the fact that they were dissatisfied with their current career or life's course, and that they literally, 'opened up the VTAC guide and their finger fell on a CM course'.

So I came into Chinese medicine because I was disillusioned with what I was doing and I went and stayed with somebody who'd just finished an acupuncture course and it was a situation of when Harry met Sally, I want what she's got. She just looked amazing this person and I said what have you been doing, and she said I just finished this acupuncture course, in ten minutes I'd made up my mind that that's what I was going to do. (IN_027)

Previous life and employment experiences were found to influence practitioner's approaches to their education and the way they conduct their practice significantly. For example, in helping them to get the most out of their time studying, or by having the skills to support the business aspects of setting up and continuing to run a clinical practice. Previous life and clinical experiences were often appreciated very much. These were not only found to help play a role in shaping and defining the practice styles and approaches of practitioners, but also appeared to contribute to their confidence levels and overall feelings of success. This may be understood further when we take into consideration the evidentiary value given to experience in CM. From this we may recognise the diversity of other life experiences and perspectives CM practitioners bring to their practice of CM, and be able to appreciate the value of this diversity even further.

Transition to practice and business support: structure & flexibility; commonalities & similarities

One of the areas of investigation in this research which has been previously little studied is that of the transition period of the new CM graduates into clinical practice. Interviews with practitioners who had been practicing from two to thirty years revealed that almost all of them found this transition period to be personally and professionally challenging. As one participant expressed:

> *And when I left uni, setting up the clinic was a pretty daunting experience. I think I set up my own clinic subconsciously because I was stalling! Didn't want to see patients because I didn't have the confidence (smiling). So it took a while to set that up, and then started seeing patients in [6] which was nice, small town, people dribbled in. (IN_006)*

Another participant talked about their fear of beginning practice after completing their degree and an internship in China:

> *I mean I probably started properly, only really part time I started February or March, after we got back. And I was shit scared when we got back and I just didn't feel like I could start and I didn't really feel like I was a practitioner. (IN_009)*

The struggle with their development of an identity as a CM practitioner as gradual was commonly described among newer practitioners:

> *Yeah, in the beginning it's like, and I think this is common across a lot of professions, like teachers and stuff, you are sort of plonked in there and you feel a bit inadequate.*

Like, I can't believe they've released me already! I can't do this, I'm not fit to do this yet. Even with all the clinical hours we did, which I am glad we did all of those, they definitely help a lot. But I think being in your own business is different. You are answerable to yourself. (IN_014)

While practitioners appreciated the clinical experiences they received at university and enjoyed CM, the recently graduated practitioners often expressed their frustration at not being busier in their practice. As one participant described:

It's still again a very beginning practice, so I don't treat that many people yet, I rarely see 10 people a week and usually it's less than that. It feels part time to me at the moment, I don't feel like I – I certainly can't rely on it financially at this stage as my only source of income so that's a part time business, I'm frustrated that it's only a part time business, I would prefer it to be busier than it is. But I'm grateful and I enjoy the learning, that's still coming to me [..] (IN_023)

Small business skills

In particular, the skills involved in business management and marketing were seen to present a significant challenge to new practitioners. Recent graduates felt they were not provided with enough education in this area at university. Consequently, they were compelled to actively seek out small business resources, networks and professional support. This can be seen in the following quotes:

Umm, I didn't realise uni didn't prepare you, we didn't have, we have, you know accounting, like how to balance the books at uni, we have one subject for fours hours a week about adding up and you know, understanding what a, umm, you know, what is classified as a debit and all that sort of stuff. And so, you know, you learn the accounting system, but in regards to starting up a business and staying in business, and all that sort of stuff, you don't do. (IN_008)

The lack of preparedness in marketing and developing their practice as a business was acutely felt by recent graduates.

There was a sense that the emphasis on clinical skills in education is disproportionate to the reality of establishing a CM practice:

I guess I thought that, if you were a good practitioner, um, that you would go out and you would get a few referrals, and then those people would refer more people and then

it would snowball, and that would be the end of it. And yes, you know, some people are going to do marketing and they would probably get a bit further, but in the end, if you were a good practitioner and you got good results that that would be telling and that would be enough. And it's just not. (IN_024)

Transitional support into practice

Many participants were grateful to an existing practitioner or other people, who had helped them in building their practice, in various ways.

Because the thing is, when people start out there's so many questions, there's so many things that they don't know what to do, and I was lucky when I started I worked in a clinic that, I was the only acupuncturist, but there was a receptionist there that pretty much taught me how to set up all my bookwork. (IN_015)

This finding relates to the need for support in their clinical practice skills that practitioners also discussed. Existing practitioners were important in helping develop new graduates confidence and understanding in treating new, difficult, and rare clinical conditions.

..and after university I followed, I am very lucky, I followed a specialist, he is very famous in China. And he is very famous in inner diseases, and some women's problems, so I followed him. (IN_029)

Emotional support and advice about how to setup and run a clinical practice were also especially appreciated and desired from new graduates. When asked what advice they might give a new practitioner starting out, one participant said:

Be patient in terms of growing the clinic practice because I think that, you know, one of the big struggles, [..] is that you have to be everything you have to be your own marketer you have to be your own spokesperson, networker, and bookkeeper and you actually have to be able to run your own business successfully as well as being an up-to-date practitioner. And it's not always easy when clients don't come in you beat yourself up thinking that you're not a good practitioner and it's actually just a matter of being patient and the clients will come eventually. So that first year and a half to 2 years, that is actually quite a struggle on an emotional level. Well, I found it was as a practitioner, just to build that self-confidence and get that experience in treating people. (IN_017)

The aspect of needing to engage in and maintain both clinical and business skills is a feature of practicing CM in Australia, and has potentially significant implications for further education, development and regulation that we will discuss further in the next chapter.

Financial challenges

When practitioners were talking about the business aspects of their practice, they often talked about the challenge of the 'ebb and flow' of patient numbers and keeping up with bills and costs during the quieter times of the year.

> *And um, I find it very hard, because a lot of my friends and family, don't understand what it's like having a business. They don't understand that if I don't work I don't get paid. (IN_008)*

Practitioners were very aware of the uncertainties of the small business nature of CM practice in Australia.

> *You know the nature of the work is that there are no guarantees like when you run your own business. There are no guarantees that you're going to have a set number of clients, so money is always, not always, but money can be a factor, especially around Christmas time where you know it's your sole income and everybody goes on holidays. You just have to go, oh well I am on holidays, and be financially prepared to not have much money coming in and generally we still have the expenses going out so that's the nature of running your own business. (IN_017)*

Other participants talked about having to maintain other paid employment in order to have a steady income, especially in the first few years of developing their practice. This was counter to their expressed desire to support themselves financially with their CM practice alone.

Practitioner isolation

Another meaningful issue that arose is that of the perceived geographical and professional isolation many CM practitioners experience in their clinical practice in Australia. Although we found many practitioners are working in clinics and interacting with CM or other practitioners, there is also a fair proportion of practitioners who are somewhat disconnected from professional structures. For example, this practitioner said:

> *It's a really lonely, really lonely business, because we are not in hospital systems where you can bounce stuff of people. Unless you are in a practice with another TCM*

practitioner, and even then it tends to be more competing. Umm, because it's private practice. Umm, yeah I don't think that we're supported at all. (IN_024)

As you can see, this feeling of loneliness was often tied to discussion about the desire for more on-going professional support and development.

..it's I mean I think morally and you know from an intelligent point of view all practitioners should have some further education, especially because they are mostly solo practitioners and they are really isolated. A lot of them don't speak to anybody in the CM area, unless they maybe do Tai Chi or QI Gong, and OK some have circles of friends they've kept from college, but many, many don't. (IN_025)

The perception of a competitive atmosphere within CM in Australia also arose in discussions with practitioners. This competition was viewed as affecting collegiality, confidence and the overall profession. One practitioner talked about their clinical practice more in terms of a business:

So everyone started, but because they didn't have the business sense and they didn't want to learn, they didn't have enough clients to sustain it. And to have it as a full time job. They do it one day a week and then have to supplement their income doing something else. So they find that, um, having it as a business, is different to having it as a practice. I think that name even says a lot too, like, a practice. You know, like, it's, you've got to look at it like a business, and I guess that's why I am different. (IN_008)

The anecdotally high rate of practitioners dropping out of the field in the few years after graduate was repeatedly mentioned by participants. This is a noteworthy finding deserving of further investigation in order to ascertain if it is, why this might be the case, and how the attrition could potentially be stemmed.

CPD – valued as ongoing & related to practice: commonalities & similarities; structure & flexibility

As we have mentioned a key finding was that practitioners especially valued their on-going learning, and appreciated the continuing development opportunities that they sought out and were presented to them by their professional associations and suppliers. The sense of CM practice as requiring continual learning predominated a number of topics in the interviews:

It's just so big. You know, um, it's just much bigger than what people think. At least if you study bloody hard at uni you've got something. But it takes your whole life to do

CM, like it's not something that you can ever do in say five years, or even ten or twenty years, it's something you've got to do your whole life. (IN_019)

While they spoke about the financial cost of undertaking CPD in the form of seminars and workshops being an often limiting factor in their ability to complete CPD, practitioners nonetheless expressed a strong desire to learn more about CM and other modalities. A number of practitioners said that the feature of 'life-long learning' and the huge scope of practice and theoretical approaches are what attracted them to CM. For example:

Because I feel like – while I feel like it's easier than it was say two years ago I feel like it's still very much – my learning is still very much in its infancy in that I still have to do a lot of research regarding cases like when patients come in and they say this is what's going on and I'm like I don't know. I don't have great confidence in my diagnostic ability at this point, I feel my treatments are much better than they were, but yeah I feel like as a learner I just feel like there is a wealth of information still untapped. Yeah, I don't know if I'll ever feel like I know it all but that's part of the attraction for me. (IN_023)

However, it was emphasised by many participants that they wanted on-going learning to be directly related to their practice of CM. As a rule, practitioners said that they needed the CPD they undertook to translate into methods and modalities that they could use with patients in order to get results. If practitioners were unable to contextualise the teachings in a way that they could understand, explain or observe in outcomes with patients, they expressed frustration and were likely to look for other CPD options that they hoped would better enhance their clinical interactions with patients and treatment results. The diversity of CPD options in CM can be seen here in this quote by a CM practitioner:

Yes, like I've tried lots of different things to see which ones I really, really gel with and I really do like doing the esoteric stuff because you see major shifts in consciousness and I love doing the Japanese channel theory and the eight extra treatments because you have this instant feedback mechanism. I guess that's part of the problem in Chinese medicine you don't really know until the person has come back how that treatment has gone and I guess it's the same in Western medicine too, but you almost get instant feedback that that treatment has been enough for that person on that particular day, and they walk out feeling better and then you can get more feedback when they come

back the next time, and you get very good clinical outcomes from these treatments. (IN_017)

Again, clinical outcomes and the patient experience were talked of as a high priority for the practitioners interviewed. They all expressed an appreciation for the flexibility and number of potential sub-modalities in CM that they could choose to develop their skills in, over time, in their practice.

Japanese acupuncture

Of particular note in this research is the unexpected number of practitioners who talked about looking to Japanese acupuncture practices for further learning. They saw it as filling in the gap in the education that they received in their university degree, where the acupuncture was perceived as being taught more from a herbal perspective than from the acupuncture channel theory associated with Japanese techniques. For example, this practitioner related:

> *When I first started, my main interest was in acupuncture, and acupuncture as a manual, physical therapy. Umm, what I found that I got at university was umm, and this is of course in reflection, I didn't really realise what I was getting at the time. But in reflection what I was getting was a herbalised understanding of acupuncture. Umm, it was a constructed, an invented, understanding of acupuncture. It wasn't properly based in the classics. It wasn't based in, umm, practice. And that was the main problem. (IN_011)*

As well as being rooted in the classics, the high level of practitioner engagement with the treatment process was an attractive feature of Japanese strategies for the practitioners who chose to learn more about them. This is explained by the focus of Japanese meridian therapies on the practitioner's experience of the patient's qi, and changes that occur during the consultation, as a result of the treatment.

This perception of acupuncture education of CM in Australia as basically a 'herbalised acupuncture' reflects the understanding that the CM taught in Australian universities is what the Chinese government put together and disseminated as CM in the 1950's. However, we may also see in this research that CM practitioners sought out further education in acupuncture as a result of their perceived deficiencies in clinical practice. Overall, it was acupuncture meridian theory that was seen by these participants to be more relevant to their acupuncture practice. The philosophies underlying Japanese strategies, such as avoiding inflicting pain upon the patient during treatment, seeing the body as dynamic and changing,

involving direct transmission from teachers, and its direct link to clinical practice, are what attracted practitioners to study it.

6.2.2 Chinese medicine within a Western healthcare setting (Australia)

In the following results we discover that the practice of CM in Australia involves a great deal of conceptual flexibility, despite the increasing solidification of institutional structures involved with CM, such as education and regulation.

The nature of education: structure & flexibility; ideas & implications

Education in CM is largely provided by public and private tertiary institutions in Australia. Many participants expressed their experience of CM university education as 'hard' and requiring significant conceptual flexibility. While participants expressed a love of CM and an enthusiasm that increased while they were studying it at university, this was tempered by clear expression of the difficulty experienced in integrating learning CM theories and practices alongside classes in biomedicine. This is exemplified by this participant description of their time at university:

> *Well, it was hard, but I loved the philosophies. You could probably go into there - like a lot of people, I'd go into there with a bit of romance about the whole image of Chinese medicine. [..] But that soon - yeah, the waters soon part and you just go it's a lot of work. It's a lot of factual stuff. You hear some of your Chinese teachers saying yeah, it's just hitting the books, it's studying late. It's not going out. [..], and trying to get your head around - because they're cramming in Taoist philosophy alongside bioscience. You've just eased your head into the rounded philosophies of Taoism and then you're going into a microbiology class. (IN_018)*

Studying CM was recounted as hard work by a number of participants and the need for conceptually flexibility was recollected as quite challenging. This sentiment of feeling overwhelmed during their education is reiterated by another CM practitioner:

> *Like all those initial classes about, even yin and yang, and all the elements, like I found all of that blew my mind. Even though I knew basically about it, it was just kind of like, yeah, understanding about yin and yang. Oh and I mean even you know, just going further along and learning all the acupuncture points, and all of that I found technically really hard like just remembering all that sort of stuff. [..] Even though I was interested*

in it, it's so different to anything we'd kind of, been brought up on, and yeah, just to, kind of get your head around it was kind of tiring. And to have those classes alongside of anatomy and physiology and western subjects, I think, made it even harder, because it was really hard having those things side by side. I found that really conflicting. I mean, I get that, I totally get that you have to do it, but I thought that we should've had that somehow done differently. Yeah, because you had to be in one headspace and then another headspace, it was really difficult. (IN_009)

While a lot of participants said they enjoyed their CM education, many talked about the process of learning and the great deal of study time that was involved and necessary in memorising and learning the complex features of CM theories of differentiation and diagnosis, acupuncture points, herbs and formulas. This challenge was appreciated when participants reflected on the experiences of their clinical placements, particularly in China, which practitioners valued highly.

The value of clinical experience

The opportunity to activate and engage with this large amount of learned knowledge in the clinical environment, whether observed during time spent in hospitals in China or external clinics, or hands-on in the university student clinic, was appreciated a great deal by participants. One participant talked about the value of their time studying in China as great, despite the challenges:

The strength of my study was the seven and a half months that I spent in China, even though it nearly killed me I think, I was sick nearly the whole time I was over there with colds, flu's, sore throats, everything. But looking back on it, to immerse yourself within the culture as well as see what it's like in a working sense, in a Chinese hospital and to have that sheer volume of patients was a great thing. (IN_013)

Despite the entirely observational style of learning that students experienced in China, this and other more hands on clinical experiences in Australia were highly valued. These experiences helped practitioners to conceptually and practically integrate the large amount of theoretical CM knowledge with their developing clinical skills, providing them with their own direct understanding within the clinical context.

For those who went to China for a time to study, the experience of spending time observing CM practice in Chinese hospitals was seen as invaluable. The experience was perceived by participants as increasing their understanding of the extent and scope to which CM may not

only be practiced, but also successfully integrated with WM practice. It also appeared to develop their cultural understanding of CM even further. The realisation of the extent to which CM may be utilised is seen in the following quote from a practitioner, when talking about their experience studying in a hospital in China:

> *I mean, I think even though I found Shanghai really stressful, you know. But as far as the, seeing how it was integrated into hospitals, and seeing that aspect did give me a lot more confidence. Yeah, I guess just seeing how widely it was used as well was really cool. And for all different conditions, and that it could be used alongside WM as well. Yeah, so um, and certainly since coming back, a lot of clients , like it's a positive thing that they might look on natural therapy pages and see that, like I put that I finished my internship in Shanghai and that's been a real positive, like they really like that as well. So, it's even just good because a lot of people ask me about it. And um, and that's good because I can kind of tell them how it's incorporated in and works alongside it. (IN_009)*

The registration requirement that CM degrees in Australia contain a large biomedical component, appeared to add value and potentially erode classical CM education concurrently. Practitioners who spent time in China reported an appreciation for being able to see the practice of both CM and WM and expressed this as culturally positive and clinically relevant. Overall, time spent observing CM practice in China contributed greatly to participant's confidence in practicing CM in Australia. This appears to be the case even though the practice environment in Australia is structurally very different, with CM practice in Australia being largely private practice in a small business environment whereas in China it is also hospital based. As well as this, many said they would have liked to have had more expertly supervised clinical experiences during their time at university. When asked about aspects in their education they would have liked to see more of, as one participant said:

> *Um, difficult aspects as in, oh I don't think we did enough practical for me. Like I am the sort of person like I learn by doing stuff, physically doing stuff, so um, I don't think even in clinic I don't think I got nearly enough practice. There weren't enough patients through, and a lot of the clinic time was just spent standing around talking to supervisors and stuff. So I think, well for me, there should've been a lot more hands on. (IN_009)*

The need for a variety of opportunities for student in order to integrate learning from the classroom in the supervised clinical environment was apparent.

'Herbalised' CM Education

As mentioned previously, the criticism of Australian CM courses being predominantly herbal-orientated arose with many interviewees, many of whom were specifically interested in learning acupuncture and not herbs.

> *Yeah, well, in our course I did feel that acupuncture did get pushed to the side a little bit more. They really tried to make it a 50/50, but I don't think it can when herbal medicine is so complex and so vast, that it does start to form the basis of a course. And if you look at the Chinese courses you can see how acupuncture was made to fit into the herbal medicine, umm theory. And I think that's what TCM theory is all about, acupuncture that fits into herbal medicine theory. Rather than acupuncture having its own theory. (IN_021)*

It was acknowledged however that there are time and resource constraints on how much could be reasonably included in CM courses, as there are so many theories and practices to cover, as well as western medical concepts, and the degree demands are already experienced as significant on students. This perhaps contributed to the perceived value of CPD in CM by practitioners, especially in acupuncture practices and strategies.

Negotiation and communication between CM & WM and other health disciplines: diversity & difference; commonalities & similarities

The practice of any health care approach in Australia occurs in a setting of great diversity, where multiple providers exist and a common language between them is increasingly required. Further to this is the finding that there is concern on behalf of CM practitioners over the boundaries of CM practice and its potential colonisation by other professions, as seen in the discussion around the practice of 'dryneedling'. These results also explore the domain of the perceived role of research and the differences and similarities between CM and WM impacting this important area.

Communication with GP's and other healthcare providers

One area where many participants talked about feeling frustrated was in their interactions and communications with other health care providers, such as GP's and specialists.

> *It's really hard is one of the first things that we said about that communication barrier between what's done in Chinese medicine and, and you know how it is understood in*

normal healthcare. It's really hard. I worked at 20 to 25 years in mixed practices and I still find it hard to communicate to GPs what I'm doing. (IN_001)

Practitioners perceived the CM domain as challenging to translate successfully to others, as you can see here:

No, it's really hard. And it's not that, as practitioners we don't know what it is, we do, we do it, we studied it, we wanted to do it, we know what it is. But to translate that into English, even though I don't speak Chinese, is hard. (IN_008)

While many practitioners reported referring patients to and receiving referrals from other practitioners from many different fields, CM practitioners in Australia repeatedly talked about some of their difficulties experienced when attempting to communicate with other health care professionals, in particular GP's and fertility specialists. As one practitioner put it:

Communication with doctors I can find quite frustrating as in some have had quite undermining attitudes as if to say, well, what would you know and look in an ideal world, the people that you share your clients with, the other practitioners or professional people that your clients will see, it would be great if we all had a good relationship. IN_017)

Practitioners gave a number of novel accounts in dealing with this, including writing professional letters or attempting to meet with other practitioners in person, or, by choosing to 'fly under the radar'. Although practitioners said they still made referrals where appropriate for their clients, some admitted to 'giving up' on attempting to communicate with their patients' other health care practitioners, preferring to focus on communicating directly with their patients. Practitioners appeared to find the phenomenological component to CM difficult to communicate, as exemplified in the following:

It's really not easy to explain. You know like I've tried thousands of times to explain things to people, over the years, but it's sort of, one of those things that unless you've studied it, unless you do it, you'll never really understand it. And even someone who does it, doesn't understand it, you know what I mean? You only understand some of it. (IN_019)

It was perceived that there was a sense of patience and perseverance on the behalf of the practitioners interviewed. This may perhaps be understood as a determination to focus on the

quality of their interactions with patients and the accomplishment of treatment outcomes, often as a priority over attempting to 'prove' themselves to other fields.

Ways of communicating CM

Practitioners also had a variety of ways in which they responded to patients and attempted to communicate about CM, recognising that they needed to adapt to patients and communicate in ways that the patient could understand. Practitioners displayed respect towards individual values. For example:

> *If the person's up to listening, you know some people come in and they've got their own philosophy. So sometimes I will try and give them an idea, just to try and open up their thinking, but you've got to be really respectful of other people's cultures and beliefs, so some people we just, they are not ready to listen to it. They can't hear it, you know? (IN_012)*

It was perceived as important to practitioners that patients are able to relate to their CM treatment in some way, and treatment explanations were often varied and tailored to the individual as much as possible. As we have previously mentioned, similarities with western terminology and concepts were sought after and frequently employed. As one practitioner said:

> *It really varies I think with the individual. Some people don't want to know, they just want to come and plop themselves down and get treated, drink their drink. And other people get really interested, and they want to know the CM philosophy, and they love like being informed from the CM side. And you know, for example, we talk about heat and western medicine talks about inflammation, which if you look at the latin root of that it just means inflame, it means on fire, it means heat. [..] And I do, I use a lot of you know, we talk about, stress hormones, and all that kind of thing, it does help, yeah it does help. Because people, we are grounded in the western medicine terminology and culture, and, you know, the CM stuff is foreign, and it might sound interesting but I think it helps them to understand. Like the western medicine terminology is kind of more real, yeah. And the CM stuff, I think the more you can put the language together where they can understand it the more they realise something is happening when they come here, yeah. (IN_014)*

Communicating CM concepts in western terms was seen as a way to encourage patient involvement and understanding of CM. CM practitioners in Australia appeared to see

themselves as representing CM within a contrasting cultural environment. Another representative response is this:

> *Yeah, I put it in really basic terms. So of course because it's been around so long it's a proven method. And what we try and do is just tap into the bodies energy, or the bodies, um, own sympathetic nervous system to try and rebalance itself, try and build things up or tone things down, and that's the way that you get the ah, the people with insomnia to relax, or get to sleep I should say. Um, [and]the ones with anxiety, to get them to calm down. So yeah, try not to put in too many airy fairy terms, so you just try and keep it um, yeah, how the patient reacts to and how they can relate to things. In their terms, so to speak.[..] Yeah if you've got an eighty year old lady you don't want to be talking to them the same way you talk to a truck driver. It's just different. (laughs) (IN_016)*

These adjustments made in individual clinical interactions with patients may be found to resonate with other clinical approaches, such as patient-centred care in WM. The length CM practitioners may be seen to attempt to communicate with their patients may however be unusual to other medical practices. This may perhaps reflect the conceptual emphasis placed on in-depth clinical questioning and the validity of the patients self-report in CM.

Communicating CM in WM terms

Some practitioners said that they preferred not to communicate in CM theory and terminology, and had developed distinctive methods for communicating their treatment approaches and plans to patients and other practitioners. These included abandoning CM referents and instead employing WM terminology or explanation, in a number of different ways. Others intentionally choose to explain the treatment actions only if the patient asks, preferring instead to allowing the treatment experience and effects to speak for itself.

> *I've got to the stage where you know, I used to educate, educate, all the bloody time. Um, and that's ok, but um, now I'd rather just let them have the result of the treatment, without having to get too much, not having to just talk all day, you know what I mean. At the start when I first started I was really gung ho, you know CM is great, but now I just mainly, um, let the results speak for itself, and let a little bit of the, what's the word for it, a bit of magic. Let them have a bit of magic and think, wow, that's pretty good, cause, you know, he didn't explain anything to me, and my shoulder's better, you know, my whatever's better. I like, you know, it's good to keep that little bit of magic about life, for people. (IN_019)*

However, most practitioners nonetheless recognised the importance of communicating with their patients in the presiding cultural language of WM. This ability to interact between the two frameworks was discussed by one practitioner in terms of being able to fit into the dominant Australia health care language:

> *Oh, the doctors just given them this label, I think they've got this, I think they've got that, it's like, well, you've got to look at the pattern as well as, you know, the western medical. They've got a lot of invasive and non-invasive tests they do as a matter of routine, we can't discard that. Um, we need to look at that. And um, I can read charts, people bring in ultrasounds, reports, all that sort of stuff, I can read those, um, so I feel that helps me in practice in understanding the client because everyone in this country is western based. They're brought up with that, that's the way it's going. CM is called an alternative for a reason. And unfortunately in this country it is an alternative. Um, and I just feel that this society understands western medicine so I find I get a better rapport by being able to talk with them and understand them. (IN_008)*

Practitioners overall appeared to perceive the imperative to communicate in the context of the development of their own practice and the alternative place CM currently holds in Australian society.

Communication as important for the profession

Successful communication was often argued to be essential for the development of the overall profession as well. The implications of the importance of communication for the acceptance of CM in the wider western healthcare setting in Australia were acute and acknowledged. However there were different views on how to successfully communication CM concepts. One participant talked about tailoring the terminology according to the audience:

> *Yeah, I think there's different language that you use for different stakeholders, really. Yeah, so I think obviously your messages need to be tailored to who you are talking to. (IN_003)*

Another participant perceived it as culturally necessary to communicate using the terminology of the currently prevailing health care system in Australia:

> *I think there's some people within the profession who go, oh well they don't have to learn our language, and that's true, it's very um it's like the, if you read the popular media, people are coming to Australia they should have to learn English. We're in Australia, we should learn to speak English, it's that very right wing red neck attitude,*

it's not up to us to ah, it's not up to them to learn to speak CM because they have a system and its working and it's the mainstream system in this society. So evidence-based medicine, it's the prevalent paradigm within which medical science operates, if we want to be medical scientists or if we want to be respected as health care professionals we have to slip into that, not vice versa. (IN_006)

The need to remain true to CM terminology, and yet at the same time engage in discussion outside of CM, was seen as necessary for CM to develop further as a respected profession. In this vein, another participant talked about the use and retention of unique CM terminology versus the development of a common language that is shared with other disciplines:

I think the advantage of using this unique language is because ah, the kidney, the lower kidney qi deficiency isn't equal to kidney disease, so we have to have our unique terminology, but once we communicate with others who don't really understand this I think it's time that we also use our modern, use our western medical knowledge. (IN_028)

The issue of translation is ongoing and came across in the interviews as unresolved and tense, despite the increasing practice of CM outside of China, and the use of western scientific methods to investigate and translate the CM endeavour.

Questions of definition and boundary: diversity & difference; commonalities & similarities

Issues related to the definition and boundary of CM practice in Australia were often emphasised by practitioners. Practitioners expressed great concern over the use of acupuncture and other CM practices by non-Chinese medicine practitioners, and the influence this may be having on the Australian public's perception of CM. This is highlighted in the discussion around the recent term and use of 'dryneedling' by other healthcare disciplines, such as physiotherapists, chiropractors, and osteopaths. One practitioner discussed their experiences with their own patients:

I see many people who have been traumatised heavily by the application of very strong needling techniques [..]. That happens quite frequently and in conjunction with that we also have the dry needling by the physios, that many of the general public confuse with having acupuncture that they use acupuncture needles. Often they won't distinguish to the patient the difference between what they're doing and traditional acupuncture so

it's very sad and [..] I think that their lack of respect for Chinese Medicine per se is inexcusable. (IN_002)

The use of 'dryneedling', the definition of which is still under debate, by other practitioners was seen as unprofessional, arguably because its practice is based on significantly less education and training (often just a weekend course) and therefore not related to safe practice. This perception of risk and the potential to cause harm was related to the safe practice of acupuncture, and therefore its overall safety is called into question.

The resulting potential for negative public perceptions towards acupuncture and properly trained acupuncturists was also of great concern to those interviewed. Many saw the use of the term 'dryneedling' as an attempt to circumvent the registration and professional standards required for the use of title of acupuncturist. Dryneedling was often discussed in relation to protecting the public, and practitioners expressed hope that its practice would be addressed by national registration. When talking about national registration, one participant said:

Um, and a lot of people, well physios in particular, are still advertising that they do acupuncture, as opposed to just dryneedling. When you know they haven't got the qualifications to do acupuncture as such. So I don't know whether it will actually put a halt to that sort of thing, or not, because the general public they don't know the difference between acupuncture and dryneedling, like traditional acupuncture and dryneedling. All they know is that the physio put some acupuncture needles in and it hurt, but it fixed it. (IN_016)

Practitioners reported that their patients were unable to differentiate their experiences of dryneedling from acupuncture and believed it was acupuncture. Patients often also reported to them that it was painful. The following quote highlights the experiences of CM practitioners in their clinic with patients who have had dryneedling, and of the public misperceptions about dryneedling:

We have a lot of people around here who say they do acupuncture and they don't. Um, you ask a physiotherapist, what the difference between dryneedling and acupuncture is and they can't tell you, they call it acupuncture and it's not. And I get a lot of people in my clinic who say, oh, I've had acupuncture before and it hurts. It shouldn't hurt, unless I want it to hurt, it shouldn't hurt (laughs). Oh but so and so put the needles in, oh and it really hurt, it hurt for the whole time, yeah but, unless I want it to hurt it shouldn't hurt. So they flinch every time I put needles in, and that's from practitioners, from

physiotherapists, from chiropractors, from osteopaths, who all have dryneedling, that say they do acupuncture. And they advertise on their walls, they advertise when you ring up, oh we'll give you acupuncture. Chiropractors treating excema, chiropractors treating fertility, it's like a cook book, that, that really upsets me. (IN_008)

The practice of dryneedling was predominantly seen as crossing over practice or professional boundaries, essentially stepping into the acupuncturists domain of practice without the adequate education levels required to be a registered practitioner. The anxiety surrounding this issue was palpable in the interviews, and practitioners expressed fear, anger and dismay at the perceived, potential disempowerment of their practice through its insufficiently educated and inappropriate acquisition by other health care professions.

Perceived role of research: classics & research; diversity & difference; commonalities & similarities; ideas & implications

The perceived role of research in CM in Australia was also contentious, as the practitioners, academics and researchers interviewed in this study, either viewed research as unnecessary and unrelated to the practice of CM, or positive and necessary for the external validation of CM practices and effectiveness. For example, opposing views were clearly expressed, when talking about the use of randomised controlled trials (RCTs) in CM, and their role in the development of CM:

..it is not a good way of assessing acupuncture, but umm, if we want to make our research readable and credible to the audience that we want to pitch it to, then we have to use their language and their methods, really too, you've got to speak a common language. [..] So I am trying to walk that narrow, integrated line, whereas there could be some qualitative studies done that are truly TCM friendly, and we'd all pat ourselves on the back, and it's a bit like preaching to the choir of course, you know, that was really well done, but I think that doesn't really serve the community very well. I think acupuncturists as a culture have embraced the science just as much as scientists, whoever they are, have embraced acupuncture. I think it's probably bigger them embracing us than us embracing them. (IN_006)

On the other hand, another practitioner talked about their view regarding the incongruity between current research methods and the practice of CM:

That's why double blind trials, I don't believe work, so you get twenty pregnant women, do Stomach 36 on them all and does it fix up, you know? Well no, if they are fire, ST36

isn't going to help morning sickness, this would, you know. I think, yeah, so I feel very strongly about the effect of modern CM on what we do. And I think it's the wrong direction, and I think um, the amount of energy we try and put into research to prove ourselves to WM is a real waste of time, and it's losing what we've got. (IN_010)

The issue of standardisation and the inability for the RCT to account for individual features in patients was seen as real philosophical challenge and a conceptual hurdle to the successful application of scientific research methods to CM, as you can see in this discussion:

In some ways it does, because at the heart of the idea of standardisation, I mean don't get me wrong, I think that there is a level, it's about degree, and context is really important, but what's at the heart of standardisation, is making everybody the same. I don't like that idea. [..] Equality, equity, I mean I like the idea of equality, but not if it means that I have to be like everybody else. That's not quite the understanding of equality that I have, you know (laughs). Yeah. So, that's the philosophical conundrum for me, because I, you know, I understand that I live in a world, where standardisation has meant that we have pharmaceutical drugs and particular protocols, say surgery or emergency medicine, that are lifesaving, absolutely I understand that. And there's a point at which I have the privilege of living in a society where those things are enabled, so I am not, I am not dismissing it outright, but I am saying that the difficulty is that it also has, it comes with its own inherent problem, and that is that for things that do not fit, they still have to have the right to exist. They still have to have the right to flourish and so how, how do we do that properly, and with integrity, and that's a very difficult question. I am still thinking about it! (laughs) (IN_011)

Consciousness around the inherent rights and nature of the individual in clinical practice appeared to permeate the concern around research methods. This may be considered a philosophically opposite point of view to common conceptions around population studies and standardisation. Ironically, the emphasis on the individual can be seen here to be coming from the CM practitioners interviewed, whereas the emphasis on collective agreement, arguably a feature of Confucianism and eastern philosophies, is strongly found in the evidence-based movement.

Another participant clearly expressed a preference for classical knowledge over research:

Like there's this strong movement towards research, especially in the unis, and I really don't think that's that helpful. You know, like, who are they talking to, and what are

they trying to prove, because really, CM has already been proven thousands of years ago. It's been around 5000 years and so why would you waste your time trying to say, oh this is good for diabetes, this is good for period pain, when we already know, very, very well, that we should trust books like this that are based on, you know, long, long evidence that CM works. You don't have to prove it to anyone, you know what I mean. You've got to prove it to the patient, you know, but if you prove it to the patient your job is done, you know. (IN_019)

This was an outlying view expressed by a single participant, but what underlies this is a concern around the integrity of CM that was also found to resonate strongly with the other practitioners who were interviewed. This may be understood when we consider again the perceived differences between the CM and WM approaches by practitioners. For example, in CM patients are viewed as unique and changing by practitioners and there is room for multiple variables and states of existence on behalf of the patient and the practitioner, versus WM where the practitioner attempts to remove themselves and view their patients through the lens of category, and variables such as multiple signs and symptoms are attempted to be reduced to single states in order to effect the greatest treatment, often ironically leading to further signs and symptoms arising in side effects, and increasingly complex states of medical being.

Research design and relevance to clinical practice

What we may also interpret in this section is that it was the relevance of research in practice that was of greatest concern to practitioners. This is a recurring theme, as exemplified by this practitioner:

It's nice to know, yeah well great, they get rats and put ST36, for some reason the research love putting ST36 in rats. Sure, there's endorphins and catecholamines and natural killers cells and great, it's good to know that something is happening, but to practice we don't need to know that. But in the future for research if they are going to use if for other medical conditions, you know use it for supportive therapy in cancer it's great that they know that. I'm not saying that it's silly, umm, yeah but as a practitioner that's a black box, we don't need to know that type of thing, yeah. (IN_014)

Research designs were criticised by practitioners as often being inappropriate for measuring acupuncture and herbal medicine outcomes. Yet it was acknowledged that there is increasing sophistication and a clear hope was also expressed that there will be a way found to measure the effectiveness of CM therapies using scientific methods. The methodology and type of trial

design were viewed by participants as extremely important in the applicability of results of scientific research to acupuncture and CM clinical practice.

> *One of the big problems has been questions around clinical research in China, has been its design and methodological rigour. The pre-clinical trials have been strong but that has caused barriers to the acceptance of acupuncture and herbs in many cases so there is an increased willingness and motivation and capacity, government permission if you like, and industry freedom in China to engage with overseas researchers to start building up evidence appropriately. So for years I been saying that we probably tap into 2 to 5% of what Chinese medicine is capable of doing, and I still think that that's the case, I think that there's so many gaps in the research and the evidence that I think that we've got a long way to go in terms of the ability of some of these medicines to really impact non-chronic disabling functional disorders. (IN_001)*

More and improved research methods were seen as possibly being able to contribute to the development of the professional standing of CM, in Australia and other countries. The challenge of conducting scientific research within the holistic structure of CM was juxtaposed against the reductionist scientific model. Yet research in CM was also seen as contributing to improving research methods in general, thanks in part to the holistic nature of CM and the improvement of outcome measures. Some of the inherent difficulties of conducting scientific research into CM were articulated, such as the broad range of outcome variables used to measure change in clinical practice, and the use of collections of signs and symptoms in CM practice.

The issue of reliability in measuring CM was viewed in relation to effectiveness in clinical practice, and the time-tested nature of CM. It was of great concern that research methods in CM reflected the nature of CM and its conceptual constructs:

> *…there's always this argument - I'll just - I'll use homeopathy as an example - okay, homeopathy doesn't work, you can't research it, there's nothing in it, it's just plain water is what we're told all the time. How about looking at it in a different way? How about looking at that to date we haven't developed any machinery or equipment that can measure to that level? It doesn't mean to say that it does work, it doesn't mean to say it doesn't work, it just means to say that we don't yet have the skills to measure it. Now that's a much fairer approach looking at, you know, complementary medicine. (IN_027)*

The above examples demonstrate that practitioners talked about being cautious when reading research findings – as to who carried out the research and how it was undertaken. There was a general feeling that conclusions from research that was done by non-CM trained practitioners was of far less quality and relevance to CM practice in Australia, which emphasises the individual nature of patients and their treatment. This also reflects the evaluation of evidence by CM practitioners in contrast to other evidentiary hierarchies such as that found in EBM. Here we see CM practitioners more accepting of evidence that has been demonstrated in the clinic over a long amount of time, rather than of evidence from clinical trials that are seen to be less tested by experience and methodologically precarious.

Challenges to research in CM

While more research was nonetheless appreciated as contributing to the acceptance of CM by the public and other professions, structural barriers were recognised by key stakeholders interviewed, and in particular the difficulties of obtaining research funding.

> *And then come back to the research, that if you know, we talk about research and everybody would say, oh research is good. But then, the issue is research also costs money, and without this support, you know, government support, or the you know, community support, it's not that easy to conduct good or big size research. And if we try to apply or attract grants and the competitions the view, from the panels, from people in the medical system, we are not really in the advanced level or position to be able to compete. (IN_028)*

This lack of funding was also seen as potentially hindering the demonstration of CM's effectiveness. However, a 'wait and see' approach was also taken by a number of participants, who saw themselves as sitting back and waiting for the perceived 'fashion' of EBM to pass. This participant explained:

> *Well, I think, you know, we can take a bit of a grandfather approach to things, and I don't know what your grandparents were like, but one of the approaches older people seem to take is sit back quietly, wait til the dust settles, and things will sort themselves out. I think that this RCT focused evidence based medicine, gold standard, meta-analysis type thinking, it's a craze at the moment, it's like flares were in the seventies, it's going to pass, or at least it's going to soften, and I think things in their extreme phase, they are always going to seem over the top. But it will settle. [..] So I don't see it as a problem I see it as a, just give the kids a bit of room for a while, let them burn off some steam, and then we'll talk later. (IN_006)*

This research suggests that CM practitioners view the application of EBM research methods to CM both with scepticism and openness. While participants recognised the methodological shortcomings of such an approach, overall most saw it as a potential way of improving communication with other fields and increasing understanding and the public standing of CM in Australia.

6.2.3 Chinese medicine as a profession

The results from this section demonstrate the development of CM as a profession in Australia as displaying a number of continuous and changing structural features. The establishment of higher education, regulation in Victoria, and changing clinical practices within the Australian healthcare environment are all found to have played important roles in CM practitioners and key stakeholders conceptualisation of CM as a developing profession.

History and development – institutional changes: continuity & change; structure & flexibility

The development of CM in Australia from a historical perspective was related by key stakeholders as having undergone significant change over the last forty years. In particular, the introduction of CM to the tertiary system was perceived as largely hard fought, but also involving political and fortuitous elements. Acupuncture as a modality was talked about as gaining momentum in the late 1970's, moving from local, private colleges to the university level by the 1990's. Herbal medicine was seen to come to enter the education system some time later:

> *It's really wasn't until the 90s and I'm not sure what stage in the 90s, I think the late 90s or even the early part of this century that herbal medicine was actually taken as a somewhat serious subject in the courses. In fact in my course we studied no herbal medicine at all. Okay, so the history of Chinese Herbal Medicine which is an integral part of Chinese Medicine is very young in this country apart from those traditional Chinese practitioners of Chinese origin who were using it in places like Chinatown and that, way back since from the beginning of time really. (IN_002)*

Key people were acknowledged as playing significant roles in the argument and support for the introduction of CM regulation in Victoria, and this year, nationally.

So then in 1997 the Towards A Safer Choice report came out and that was done independently out of Victoria by Alan Bensoussan and Stephen Myers also which was good and then as you say the rest is history because we got registration and that has made a huge difference and now we get national registration from the 1st of July. So we get national registration because it's essential to protect the public for - the whole of the country for Chinese medicine practitioners. (IN_027)

The recognition of CM in the education and statutory regulatory system was perceived as a success. This perception was balanced by the expression of participant's apprehensions at the cost of these developments, in particular in terms of the potential loss of meaningful educational and practice freedoms. We will discuss these further later.

CM has been covered under Australian private health funds since their proliferation in the 1990's. While most saw the recognition from health funds as a positive contributor towards CM being recognised as a legitimate health care profession, some also expressed a wariness and concern at the power that the health funds can exert on patient choice and therefore the profession. For example, one participant talked about the development of CM in Australia being linked to the situation of CM in other countries:

It's a slow process. The process of professionalisation is not complete in Chinese medicine and you see what you've also got is another problem and that's a worldwide problem - not a worldwide, sorry, it's a developed country problem where people are - well, medical dominance basically - where you have situations like in the UK where at the end of next year no complementary medicine course will be taught in a university. Private health funds are not rebating on complementary medicines. [..] Now this is I think where practitioners of complementary medicine are going to have to be very careful in the next five years, 10 years that we don't find ourselves so marginalised and, you know, it is going to be the young practitioners who are going to have to fight this battle because, you know, we cannot have this happen. Fortunately Australia is, you know, slightly different. You know people are a little bit more ballsy. They - if they want to have - if they want to choose who their practitioner is they will and if they want to go and see a fish whacker or they want to see a specialist they will but once you've got top down pressure saying, well you have to pay for it only out of your own pocket, we're not going to rebate you any of it, it will affect all of us. (IN_027)

The future development of CM was seen to be 'in the hands' of the younger generation, who would need to 'fight' for the further establishment of CM practice and validity in Australia.

Levels of professional support & competition

A key structural feature of CM practice in Australia that differentiates it from other more established healthcare professions is the area of transition to practice and support for new graduates.

> *It's very difficult I think to come into the profession because It's not like more established professions like say [1][2] where you'll go into an established practice, you'll work there for a couple of years, you might be asked to be a partner or you might then go out on your own if you're entrepreneurial and set up your own practice. In Chinese Medicine, possibly because there's not that same culture, and perhaps not the money, and it seems to be a little bit rarer to get employed by someone else. So you might be able to rent out rooms or that sort of thing but there's not that same sort of job security so you've got to go out, sometimes on your own. I think a lot of people do that and you can't just leap into it with a salary. It doesn't work like that unfortunately and so, if you don't have the volume of people you're seeing it takes longer to establish your confidence, your rapport, your reputation and build a practice. So, I think it's tough for people graduating. (IN_013)*

This was reflected in recollections of the difficulty in setting up practice, and the high dropout rate reported anecdotally by many participants. The feature of CM in Australia, as being highly competitive, can be seen in the research to have had a significant impact on the experiences of CM practitioners, in different ways, and this emerges throughout various themes. The use of mentoring was seen as a professional feature that may contribute to the cultivation of collegiality and provide a remedy towards the difficulties experienced by new graduates in Australia. This was explained by the following practitioner as such:

> *Herbal medicine, um, I don't know, it sort of, like if I didn't have a mentor I'd be nothing in herbal medicine. Like I can use a book for acupuncture, that book's good, but with herbal medicine you can't go without having a mentor really. That's one thing that I think doesn't happen enough in Australia, people think they can do CM without a mentor, and that's sort of, a little bit of a mistake. (IN_019)*

[2] Removed as a potentially identifying datum.

To some, this support of other practitioners reflected an overall professional disunity of CM practitioners in Australia. The establishment of improved structural support for practitioners was considered to be a significant component to the future success or failure of establishing CM practice as a valid modality in Australia.

> *I think there's a problem I feel, which I have experienced, that many other colleagues experience as well, that's, we could probably use the word disharmony, exists. Um, at many places, like sometimes you feel this profession is not united. You know like, some people I think pay too much attention to their own power and control, rather than consider the profession as a whole. With this problem I think we have had experiences that destroyed lots of good opportunities and destroyed lots of good efforts which have been made for many, many years. I understand that this kind of disharmony exists probably in many other professions but it, just considering our profession, it is small, but these kinds of issues are huge! (IN_028)*

This aspect of CM as a profession is compelled by practitioners desire to see a reduction in feelings of competition between CM practitioners, and overall disagreement within the profession. One practitioner explained their view of this:

> *Um, even though I still need acupuncture, I can't give it to myself, (and) I am not going to be able to fix every client, so I am going to need a back to be able to send someone, and I am going to need a network within my own network. And I find that acupuncturists won't do that. [Interviewer: Why do you think that is?] Competition. It's like in China, each family has their own tradition and their own, um, secrets, and they won't tell anyone else because that's their family secrets. And it's just, um, that's what it is. Even though it's not taught here, it's still transferred down here. People find it as a, umm, competition, and it's not that at all. People come to you because of you. (IN_008)*

The ideas that the practitioner patient relationship is of great importance to clinical success, and that there is the room for individual practitioner qualities to exist in CM, is reflected in the above quote also. This suggests that some practitioners do not view themselves as competing with other practitioners for business, and envision room for more CM practitioners to practice in Australia.

Future development of CM

Overall, the development and increasing popularity of CM in Australia was viewed positively, and that much more was yet to come.

It's a, you know, really early days, we've had CM in our, sort of, mainstream culture for ten, twenty years. It's been around a bit longer than that, but not really. I mean you get grannies coming in now for acupuncture, it's normal now. At least in the city, in affluent areas, it's normal. (IN_014)

Clearly it was perceived that interest in CM was only growing in Australia, as you can also see from the following quote:

.. that reflects you know, the surge of interest in Chinese culture generally, but also the awareness and I suppose respect that Chinese medicine, they all go hand in hand. And the other side of that is the number of practitioners coming through the colleges, the three existing big colleges now, and the general interest, and you know there's endless small courses in tuina and shiatsu and little, um introductory courses you can do, so there's lots of people who are looking I suppose at a future in Chinese medicine, or you know are interested enough. So that's growing all the time. (IN_025)

When asked where they see CM in Australia heading, one participant replied:

So I think coming back to original question it was where do you see it going, what do you think are the needs. I mean the fundamental aim for me, is better integration and the purpose behind that aim is to better serve the community, so that people have got choice and you are widening the choice of therapies. (IN_001)

This call for further integration and public awareness of CM was commonly expressed across all participants. As a whole, practitioners understood the public saw CM as an alternative therapy in Australia, when compared to other health professions. However, some saw it as having the potential to develop into more than that:

I think, you know, it's definitely a stand-alone, [..] we are a primary care provider and you know, we can provide our own treatment without it being, complementing existing conventional treatment. (IN_003)

The development of postgraduate educational programs and clinical specialities were seen to be further steps in the professionalization of CM in Australia:

Probably where it needs to go is to have masters courses which are focussed in particular on a clinical speciality so that you can really get the depth of training and part of that would probably necessitate going to places like China to study intensively

and actually get the clinical practice under your belt so I think that's where the future of Chinese Medicine education needs to go so that you actually do have people that are skilled in speciality areas. (IN_013)

Another issue repeatedly raised by participants in the interviews and the survey is the desire for the future inclusion of CM into Medicare:

Yes and, you know, I think long term registration look at specialisations, look at Medicare, you know look at those sorts of things to be a part of Chinese medicine but it ain't going to happen yet. (IN_027)

Currently only GPs who are endorsed by the Medical Practitioners Board are able to claim specific Medicare item numbers in relation to acupuncture. This divisive public funding of acupuncture practices warrants further consideration in light of these results, which suggest that acupuncture practice in Australia by CM practitioners is a highly professional and skilled endeavour, worthy of stand-alone recognition in the Medicare system.

National registration – pros, cons and uncertainties: continuity & change; structure & flexibility

As a salient topic, the introduction of national statutory regulation of CM, in June 2012, was discussed by almost all participants. Views on national regulation were positive overall, however a number of areas of uncertainty were also brought up by participants as potentially negative. Practitioners anticipated the benefits of national registration as including increased recognition of CM practice in the Australian health care system, increased public awareness and interaction with other health care professions. A participant stated:

I think being a registered member of an Australian board, so to speak, gives you a bit more credibility. But then again people want results, they don't really care. (IN_016)

Some practitioners expressed wariness at the possible benefits to CM as being outweighed by the cost to their individual practice:

Yep, it's actually ridiculous, when you think about it. Even the further learning stuff, it's like, they should make it cheaper, because when you are struggling, it's a massive, it's a massive expense. Umm, yeah, CM board, registration fees, association stuff, like really, what are they doing that is costing us that much? (IN_024)

Practitioners from the state of Victoria, where CM has been regulated via statutory regulation since the passing of the Chinese Medicine Registration Act in May 2000, talked about their experiences with registration. While overall it was viewed with acceptance, apprehension was expressed that the perceived litigious and unsupportive nature of the registration body in Victoria would translate into the approach of the national registration body. With regards to their perception of the CMRBV, one participant talked about hope for national registration:

> *[..] they seem to take on a violent, aggressive, litigious role. And I thought from the very outset, this is wrong. This is wrong. I just hope it doesn't happen nationally that's all. I pray that the mistakes that they made and that the attitude, the culture that lived within the Victorian registration board, does not transfer at a national level. (IN_020)*

On the other hand, an alternate view was also expressed by participants, who saw registration in Victoria as only positive and contributing to the development of the profession. For example:

> *"Well I think registration is fantastic. I am sure, well I get a lot of people complaining to me about registration, and I'm sure they are a bit heavy handed, I'm sure that some things could be done better. But as a general rule, I think registration is fantastic, and has been really good for Victoria and I am sure will be really good for Australia. I think there has been and I'm sure in other states, maybe in Victoria, but I am sure in other states that there has been people practicing without the education and knowledge, and it's not good for the CM community and it's not good for patients either." (IN_025)*

While litigation against those who were seen to be harming the public and the profession was viewed positively, it was also perceived by some that national registration would contribute to the development and practice of professional behaviours in CM practitioners. As seen here, professionalism was valued by participants:

> *You know, from the 1st of July we're nationally registered, we have a responsibility and you look at the history of CAM worldwide, osteo, chiro, Chinese medicine, they're the three top ones that have statutory regulation and therefore respect and when you work in those professions you need to be a professional. So, you know, there's no time for pettiness and stupidity around that, you know. (IN_027)*

While participants understood that registration was introduced to 'protect the public' (an oft-quoted phrase), there was a lot less clarity expressed about who protected the interests of CM practitioners. Also, what practices fell under the definition of CM was also of concern to

practitioners interviewed, as practitioners expressed significant differences between practices, such as Japanese and Five Element acupuncture, and traditional and modern CM.

However overall, national registration was seen to positively benefit the development of CM.

> *It's a chicken or the egg debate isn't it, but I think my perspective and my strategic approach towards it is the communication comes first. We've got registration, and I think for some people, rightly so, because they've been fighting for years, the older members of the profession say thank goodness it's finally happened, now we can put our feet up. Which is, hats off to them, worlds of gratitude, but for the younger end of the profession that's our call to arms, that's our time to say OK now we've been, we've got this voice in the profession, time to do something with it. It's, that's what we should be doing, it's the beginning not the end. (IN_006)*

Participants expressed a belief that national registration places CM in Australia at the forefront of CM's development outside of China. Whether with anticipation or apprehension, national registration was viewed as significantly influencing the future of CM practice and development, as well as public and inter-professional perceptions.

Role of professional bodies – confusion: commonalities & similarities; structure & flexibility; ideas & implications

A confusion between the roles of the regulatory bodies (the CMBA, CMRBV) and professional associations representing CM practitioners (i.e. FCMA and AACMA) clearly emerged as a theme out of the interviews. The following quote represents this point well:

> *I think, you know, a few - years into it there is more of an understanding about what legislation is and what it means to be in a regulated profession. I think there's still a big gap, though, where people don't really - practitioners don't really understand - I don't know - I guess the ramifications that they are regulated; the difference between the registration board and the professional associations. There's sort of this idea for some people that it's all just in one big basket and they all serve the same function. I think a lot of people don't realise that regulation is about protecting the public. (IN_026)*

It seems practitioners were unclear about not only which professional body was responsible for protecting the interests of practitioners, but also who had the primary role for promoting the profession within the wider Australian health care system. Practitioners in the previously

solely registered state of Victoria, felt disappointed that the perceived promise of promoting the field of CM was not met by the Victorian registration board, and expressed concern and hope that the wider promotion of the profession may occur as a result of national regulation. As one participant said:

> *What I would like to see more of from the registration board is and what they sold us at the beginning when they first came into being a body was that they were going to educate the public on Chinese medicine practices and I personally haven't seen any of that. [..] And I think, I'm not sure if they considered this part of their role, but there doesn't seem to be much support for practitioners either. (IN_017)*

This reflects some of the confusion over what the roles of the registration body are, and the past and future expectations of practitioners towards registration, in Victoria and nationally.

Some participants saw that the job of promoting the interests of the profession and practitioners was the responsibility of professional associations, though no-one stated that they felt this was occurring strongly. When talking about their hopes for the future of CM in Australia, one participant said:

> *I suppose I am a bit concerned that practitioners don't understand that the future belongs to practitioners. Because national registration is only about safety and protecting the public. Um, national registration can affect, hopefully the standard of education that people have to practice, but if practitioners want to see, for example CM in the allied health care legislation, I think health funds and practitioner associations need to represent that. And who is the associations? It's only their members. So unless the practitioners are cohesive and form a voice, like it really, more than ever, professional associations are more important, to actually promote the interests of CM practitioners. (IN_022)*

Education standards, reflected for example in the issues of practice boundaries and 'dryneedling', 'herbalised acupuncture' education, and the continuation of the practice diversity of CM sub-practices and approaches, emerged as particularly noteworthy. One participant reflected upon the need for education to be largely administered by educators and to reflect the variety of theoretical approaches, as is found in other disciplines such as psychology and sociology:

> *One of the things that I reckon that um, the registration board in Victoria got wrong, was um, that the education part should've, they should've stuck out of the education*

part where they became proscriptive. What they should've done was, we believe the tertiary institutions, or those institutions that are teaching CM, have the experts, they are at the forefront, they know what's going on because they have to know what's going on in order to be able to do what they are doing, and they will be at the cutting edge. On that basis we believe that they will be doing what needs to be done in order to train a person to minimum requirements so they can be a good practitioner, the starting off good practitioner. All we ask is that they um, make sure that they get enough clinical training, that they get a sufficient amount of biomedical training to make them at least relatively safe, and that they get everything that they need to get in terms of their CM training. How they do it in terms of schools of thinking and so forth is part of the education process, which is not our business it is theirs, so that they prepare students. So that for instance you could go to one school and be prepared a particular way but that doesn't mean for instance it is better or worse. [..] What the registration board does is basically, we will do everything else in terms of licencing people. (IN_020)

The configuration of structures overseeing the education and practice of CM in Australia is still in a developing stage, and now is a salient time to examine the roles of formal bodies and the implications of these.

Other issues that arose related to registration demanding future address include the use of scheduled herbs, professional development and support, and practice boundaries with other professions.

Professional support – transition & development of professionalism: commonalities & similarities; structure & flexibility; ideas & implications

Practitioners could be seen to be displaying behaviours that exemplify professionalism. Participants understood that CM in Australia as a whole was undergoing a process professionalization, and that the cultivation and display of professional behaviours was expected. For example, the link between education and professionalization is acknowledged here:

Part of the training, yeah. Learning to go to those areas, is really important. It's really hard for the TCM people when they first hear it, they go, but I just want to be myself! You know, yeah, good, but who gets something out of that in the clinic? And then they have to go, oh me. And well, it's not about you, you are a professional, you are paid to,

heal and be with this person, without giving yourself away, and going into co-dependency, or fixing and controlling, and all that other stuff that you do too far that way. (IN_010)

Professional communication, and in particular the use of referral and working with other health care providers was also recognised as important. Practitioners saw these behaviours within the context of the patient and their well-being as being central to this. As this practitioner states, the impact of professional behaviours with individual patients was seen to affect the state of the entire profession:

Because that puts the patient in a difficult situation as well. Where they feel like they need to defend what they are doing to their doctor or are made to feel silly. Umm, and it's also really important for our profession, and to you know, be at least conversant. We don't need to be particularly knowledgeable but umm, you know, knowing when to refer and understanding very basics about medications and treatment and that kind of thing. And also to support people with the treatments that they choose through their western medicine practitioners. Umm and just to offer complementary care, where that's their primary form of care, just to be a complementary practitioner. (IN_014)

However, as we have recounted previously, the recognition of professional behaviours was tempered by practitioner's desire for more support in their professional development.

One key area of this that was explored with participants was practitioners' experience of support in the development of their clinical practice and professional skills, particularly in the transition period from university to clinical practice:

I suppose there didn't seem to be for me a real clear understanding of how I was going to function in a clinical situation, I feel that was really difficult when I first went out into practice to actually – how am I going to practice Chinese medicine. I had all this academic knowledge but when a patient comes in what do I do, how do I speak with them, how do I be with them, and how do I do that in a professional way but in a warm and welcoming way. (IN_023)

The learned ability to interact with patients professionally, and being able to continue developing these and other skills related to clinical practice with other practitioners, was considered necessary. Professional associations were not seen to meet those needs and practitioners took it upon themselves to establish this professional support, as the following practitioner discusses:

Yeah, I don't feel like the, the, I mean there are seminars and workshops and things like that, but as far as those sort of study groups, or sort of mentoring groups, they've always been initiated, usually by me! (laughs) Umm, when I think about it, over the years. Yeah other students or people that I studied with or other practitioners, you know, so there's definitely a need for it, and umm but certainly nothing a professional association has organised, that's for sure. So it's something we've just done on our own. And I remember as a student setting up a study group and then through work setting up small study groups, you know, all that stuff is totally invaluable I think. You really, really need it. (IN_015)

It was perceived by many practitioners that their education and continuing education were of significant importance in their professional lives, and they expressed great appreciation for the CPD experiences they had participated in, such as seminars.

Yeah it just stimulates the interest in the profession again and then they ask me to see things differently. Because it's a profession where you're working on your own kind of I get caught up in my own sort of treatment style and I tend to use the same points for the same kind of conditions a lot of the time where when someone's presenting to you – that point I hadn't thought about, or that treatment principle I hadn't considered, or that herbal formula, I wouldn't have even ever used that for that. So it's great to get someone else's perspective, I would probably learn more from a seminar than I would from reading a text book. Having said that I like to have the text books to refer back to because quite often with seminars you'll just make some scratchy notes and a lot of it goes missing. (IN_023)

Resoundingly, practitioners wanted more and better CPD opportunities, particularly for rural and new practitioners. As a result of their own experience, many practitioners expressed a strong interest in the provision of a formal transition support program for new graduates and also continuing practitioners. For example, this practitioner said:

I can't imagine going out and practicing on my own as a new practitioner, I think it would just be so daunting, you'd make so many mistakes, and just have no idea what you are doing, and it would be hard, it would be hard to go past that first year of practice, and continue in practice. And I am sure other professions have mentoring programs, you know. You really just need someone to talk to, you know, on a regular

basis. You need to be able to while you are a work, and you have someone lying on the table, to be able to call somebody and say oh my god what do I do here." (IN_015)

The nature of this support was conceived of in many ways, for example from an internship to a required or self-selected mentoring program. Practitioners suggested a number of ways in which professional support and ongoing development opportunities may be improved, such as more online education, networks and forums. Many of these ideas appeared to come from comparisons with other professions.

Practitioners clearly wanted more support in developing their clinical and business skills, professional behaviours, and professional identity.

There needs to be more help with the business stuff as well so, cause I think a lot of practitioners, I mean you go into your own business essentially when you become a practitioner and a lot of people don't have those skills and it would be really cool, if there was support for that. (IN_009)

Participants expressed wanting support from their professional associations in order to be better able to communicate with other healthcare professionals such as GP's, physiotherapists, chiropractors and naturopaths.

CPD was clearly seen as a professional behaviour that aligned CM with other similar professions:

Well I don't think it's any different to other health care professions really. If you look at some of the other professions they've all got ongoing professional development in terms of, you know, whether they want to diplomas, postgraduate diplomas. If you look at nursing, look at all of their different specialty training within different areas of nursing, you know like aged care nursing, or intensive care nursing, or clinical practice nursing, or you know, even research. I think you can look at there's so many different examples of healthcare practitioners and the professional opportunities they have, I don't see why we would be any different. (IN_003)

CPD was seen as an important part of the development of the professional standing of CM in Australia, both within CM and within other fields, by CM practitioners and by practitioners in other fields in CM:

I find that all medical professionals need to do continuing practical development, even western doctors need to do that. But I find that, their ignorance in learning about CM is

frustrating, and they don't want to learn, um, about it, or, you know, they think it's hokey pokey and all these other names I get told. So yeah, it's a bit frustrating in that sense. (IN_006)

The growing desire for more health care providers to increase their general understanding about CM represents the developing state of CM in the health care system in Australia. As more people choose to see CM practitioners, more successful communication and referral will need to occur in order to support those patients who choose to see multiple health care professionals.

CM & WM – perceptions of the relationship: diversity & difference; commonalities & similarities; classics & research; structure & flexibility; ideas & implications

It was the differences between WM and CM that attracted many Australians to study and practice CM, however the past, current and future relationship between the two systems of medicine was perceived in as many ways as there were participants in this research. The differences highlighted by participants included: differences in the underlying philosophies; approaches to patients; the clinical experience; ways of practicing; and the therapeutic potential. As one participant discussed:

Chinese medicine is a very powerful modality and is best practiced within its own parameters. Diagnosis is best with this framework and patients often relate very well to a Chinese medicine diagnosis and aetiology. This allows both patient and practitioner to operate in the same medical model. This allows lifestyle changes to be better understood as well. While it is interesting to know the western diagnosis, many patients are presenting because the western diagnosis hasn't helped their condition or there isn't a western solution outside drugs or surgery with undesired side effects or potential side effects.(REF_006)

CM was situated in the context of the surrounding healthcare ideologies and practices, and understood to be one approach among many available to the Australian patient. You can see this here in the following practitioner response:

After 10 or so years of treatment I find that I have refashioned the way I practice according to my experiences. I am strongly informed by evidence based medicine, and Western medical understanding of diseases, pathophysiology and treatments. I came out of school thinking that I could fix everything. Now I have a much more realistic understanding. I know that sometimes the disease is too strong; sometimes people

don't really want to put the work in to get better. Sometimes TCM does not have the ability in itself. I believe in working together with other modalities be they psychologists, kinesiologists, Feldenkrais practitioners, GPs or other WM specialists to help a person move forward. (REF_007)

Always we can see that of prime importance to the practitioner is the ethical stance of the individual patient, and the benefit that may be provided to them. CM is understood as changing, not only in its own continuingly evolving internal methodologies, but also as a response to its interactions with surrounding methods, such as those found in science research and WM. In this light, CM practice in Australia was seen by one participant as intermingling and inseparable to WM.

So if you ask me about why I practice CM, um, I probably say, I don't really mind which medical system, you know, could be able to provide the best for the patient. You know like, it's good to consider which modality, which method, can benefit the patient better, then that should be chosen. So this is why even, you know, [..][3] some people ask my view about the two medical systems, um, I think nowadays no-one can really separate any medical system, they are all related. Like CM is also developing, and along this development, there are also lots of WM diagnostic methods we are using, we use in our practice, we use as a reference. Um, and even the development of herbal medicine, we also use WM methodology. (IN_028)

Although CM was often seen as increasingly integrated with WM, it was still considered to be different in significant ways. These include the views of the body, approaches to diagnosis and treatment, and the differing appreciations of scientific and clinical evidence. Yet these were not seen to be in disharmony, but rather able to work together in complementary ways. This is exemplified by the following practitioner's reflection:

I just, always the patients, so I told them, actually you do the WM and CM together, is really good. The second is totally different, because the WM is very focused on the deep, very deep, deep cell, into the cell level. So everything is clearly, everything with the treatment, you can see what's the effect. But CM [is] not, it takes the person as a black box. To be a doctor, we don't see your cells, but we will see what [are] your syndromes. You know, if you feel hot, if you feel cold, if you feel, you know, bleeding somewhere or some headache or pain or something. We have 5000 years history and

[3] Data removed as potentially identifiable.

experience so we know [how] the syndromes behave. Yeah, so, we will give the different herbal medicine and the acupoints to help the body. Yeah, so it's what I do. Because you know the WM is, I think is, ah the development of the WM is according to the science. The science is more development the WM more details, more sensitive. But CM is focussed on the experience, 5000 years experience. The more practical, we more clearly what's your problem. But you know, it's together is good you know. (IN_029)

The power of CM as perceived by participants was not only in its ability to work well with other modalities, but in its differentiation as an individualised medicine.

Seen as treating the underlying cause of disease and the body as a whole, participants considered CM as complementing the perceived scientific and specific treatments offered by WM. It was hoped that in the future improved research methods may be better able to account for the Chinese medical feature of multiple syndromes that may explain one WM diagnosis. For example, hepatitis or period pain where there may be a number of different underlying syndromes that all require different formulas or acupuncture points.

Aspects of CM were viewed as being in process and change, and as being situated historically and in complement to that which is around it. For those involved in it, this gives the practice of CM and its future a distinctively broad perspective. In particular, local interpretation and the practitioners evolving experience within CM were highly valued, as this practitioner articulates:

What I'm trying to say is that acupuncture is not necessarily what people do when they first graduate, it's not just a matter of sticking the needles in specific points for specific things but we do it in the truest traditional sense it's understanding how the body works according to these ideas that were established thousands of years ago that are just so – one of the beauties of this medicine is having complementary approach to the western approach. I see so many people who come to me and they say, well they can't do anything more. There's nothing more they can do because according to the western structure of medicine, they've exhausted all therapeutic possibility. I see a lot of people in those situations here and it's imperative for me as a clinician to be able to interpret the patient's condition from any stage in medical perspective to be able to apply my treatment in the most powerful fashion. So I learn every day from the outcomes and I'm continually refining and learning. (IN_002)

In contrast to WM and other modalities, CM practice in Australia was identified as holistic and incorporating aspects of the mind and spirit. This feature of CM was often personally related to

by practitioners and encouraged within their clinical practice and professional development. At the same time CM was sometimes seen as differentiating itself from CM in China in its adherence to classical methods and teachings, which we found to be valued highly by many Australian practitioners.

> *As a, um, Lonny Jarrett (291) loves to say, great acupuncture should nourish one's destiny. As opposed to what modern Chinese acupuncture is trying to do, which is become more like WM, and in my world, it's losing its effectiveness, because it's not great at that type of stuff, and um also, it's losing all its power because it works better if you go this direction. (IN_010)*

It was important to some participants that CM was essentially different to WM, and that it remain as such.

> *Yeah, so, I guess that's the cause and effect, which is part of the Buddhist philosophy. And they also have that belief that everyone, you know that we can evolve, that there's no real hierarchy, we've all got the ability to be a better person, so be compassionate. And think that's where I find CM is much more, well I like to think that it's much more compassionate. You know, comes from a you know, place, from the heart. And you know, my experience of WM is that it can be quite fear based. (IN_012)*

The integration of philosophical thinking within the discourse of participants in this study represents both a personal and objective engagement with the fundamental ideas of CM. Participants were discovered to have thought deeply and meaningfully about CM ideas and the ways in which they compare and contrast with WM concepts, such as scientific reductionism and quantum physics. As this participant explained:

> *I think of course because fundamentally they're totally different ways of describing the body. So you talk about - Chinese Medicine it's based on an energetic model of the body, this concept of Qi, the complementary opposite forces of Yin and Yang, they have no correlate in western medicine. The closest term that you could describe Qi is perhaps energy but we know that in Chinese Medicine even that's not sufficient because there are over 275 definitions in the one Huang di Nei Jing of what Qi is. How could you just reduce it to one word energy and yet that's probably the closest one you could get in western terms. So you've got this whole concept which is based on energetics which I would argue that perhaps quantum physics is probably more able – would be more comfortable – a physicist would probably be more comfortable with the*

concepts of this than someone who's schooled in biomedicine. Because the biomedical model of the body is still what I would say a mechanistic model of a body. And that's a reductionistic model. (IN_013)

The descriptions of these concepts were invariably related to their meaning in clinical practice and the interconnected nature of phenomena acknowledged by participants. CM and other theories, including western theories, were consistently and continually re-interpreted and applied in the clinical setting:

Well I like the completely different paradigm working with the body as an energy body rather than mechanical body as such and how it does have an holistic approach, tying everything together. That we are a symptom of our thinking or our way of living. Our lifestyle has a big effect and it shows up in our physical symptoms. So I enjoy putting the pieces together. (IN_017)

The interconnected nature of the mind and body was seen as a feature of CM that was more theoretically incorporated that in WM, although participants saw that WM was coming to understand this as well, particularly in areas such as psychoneuroimmunology, and in studies on the effects of emotions on the body.

And the comparison with western ideas was also found to be undertaken on a personal and professional identity level by practitioners, who often saw themselves as relating to and between CM and WM ways of thinking.

..from the professional point of view is that it offers, um, how can I describe it, it offers a way of being able to understand what it is that is going on in the world around you. And, the nice thing about it, the appealing thing about it, was there were links between western thinking and Chinese thinking, in so far as the ideas being applied at different levels within the world. That is in the person, in the individual, but at the same time those ideas were equally applicable um, to the world as a whole, so to society and so forth. Chinese medicine said that. Well at least the ideas behind it. Um, and we were often told that western thinking didn't do it. And my view was, is, it does, but it hasn't made the same links, and they are not as tightly woven in the western world, as it is in terms of the thinking in Chinese thinking. But it's not as if western thinking is completely bereft of those sorts of ideas. (IN_020)

Practitioners found similarities between WM and CM in: their personal experiences with both medicines; connections between organs and translation/communication; quantum physics and systems theory. A representative quote highlighting this thinking is this one:

> *In quantum physics, things don't behave like you, you would expect, you know. Like if someone measures something, then the measurer, in quantum physics, if you measure something, the person who measures something, has an effect on, their intent on what's happening, has an effect on the outcome of that measurement. So [..] it works to an extent WM, but I just, I just think there's more to life than meets the eye there, you know. And you know, if you try and try and try and find something, like a cure for cancer or something like that, you will find it eventually. Um, but it's sort of like the measurer, and the intent of the measurer, building up momentum and finding that, finding that outcome, but it's just not my cup of tea. I see it from a different perspective. (IN_019)*

It was clearly acknowledged that there are a number of explanatory systems within western thinking that reflect CM thinking, albeit less in relation to the body and healing and more in the social and information sciences. Systems theory, for example, was understood as providing a connection between this participant's learning and life experience, and CM thinking:

> *And systems theory was completely different to all sorts of other things we had been introduced to at university. And the idea of systems theory I thought was absolutely mind boggling. In addition to that we were also introduced to what was called game theory, um, information theory, Gregory Bateson all that kind of stuff, and I thought oh, this talks about connections, links, relationships. the idea of cause is important, but it's couched in different ways, understood in different ways. And I found that fascinating, because those ideas at the time were applied to social situations, not the body being sick, but to patterns in society. […] And having understood that, and then coming to CM, the penny dropped. I thought, well, the difference is the application of the idea is in a different setting. One was a social setting, the other's the human body. And then CM says, well there ain't no difference. You can still use the same ideas in the social setting as well as the human body. Thank you very much, I found home! (IN_021)*

The challenge of an aligned and shared terminology was recognised as complex and unresolved, although participants did share their suggestions for and visions of the future.

Absolutely. I think it's got to, not only is it possible but I think it's essential to CM existing in a contemporary western culture. That said I don't think there's any direct translations, like umm, for example you often see people try and translate western diseases directly into CM, this disease is always this, that's, I don't believe that is the case. But we need to share a common language, and when you are looking at the classic literature, I think the classics are much closer to that than contemporary TCM is. I think the classics were very much descriptive of what they saw, so they are very material, they talk about blood and air and water, and things that are very much tangible substances, they are not talking about chakras and auras and fairy godmothers or whatever (laughs). So I that that is a bit of a gateway, it's just an early form of medicine. [..] I think we have to come back to, what are we talking about here. And a lot of the research on what are meridians, what is the acupuncture effect, is actually bringing us closer to classical CM rather than further away. Because of that material focus. Yeah, so I don't see them as enemies, I think if we see them as enemies then there will never be discussion. I don't see that us and them mentality as being productive in any way so I think it's best to discard it. Sometimes it fits, sometimes it doesn't fit, and that's life. (IN_006)

Overall, CM and WM were perceived by participants as having important similarities. These commonalities were not viewed as being dis-analogous to the differences also perceived, but rather appeared to be conceived as co-existing. Together the features of CM and WM that made them appear similar and different to each other were what made CM and WM simultaneously mutually and independently powerful, almost as if they were yin and yang, co-creating and defining one another.

6.3 Discussion

The qualitative data presented in this chapter have provided a field of themes that are extensive and meaningful. Chinese medicine practitioners described the nature of their practice as diverse and complex. They described activating and relying on CM theoretical and practical structures a great deal, and yet also realised the flexibility in their practice abilities and in the application of CM theory with individual patients. There was a tension elucidated in the nature of evidence in CM and the translation of knowledge between classical evidence, research findings, and their relevance to clinical practice. The incorporation of multiple forms of evidence represents the theme found that CM practitioners in Australia understand their practice as involving various continuous and longstanding features at the same as there are a

variety of rapidly and necessarily changing features. This is particularly noteworthy at this point in the professionalization of CM in Australia, as we have seen here practitioners are concerned with maintaining the integrity of their practice and the link to classical and experiential forms of evidence in CM, as well as knowledge learned from experienced practitioners, but they are also embracing Australian professional behaviours and terminology. CM practitioners are concerned that there is not the professional support available to them that they perceive themselves in need of, and at the same time communicate a strong desire to maintain the flexible and holistic features of CM practice that they perceive enable its effectiveness in clinical practice. Their professional identity recognises that they often have very personal experiences with CM and they relate strongly to the CM philosophy underlying its practices, which they see themselves as often having much more to learn from.

Within the second major area of concern identified, that of the practice of CM within the western healthcare setting in Australia, there were a number of themes that emerged as salient. These include the unique displays of new and novel ways practitioners were attempting to negotiate and communicate between CM and WM terminology, with their patients and with other healthcare providers. A variety of differences and similarities between CM and western ideas appeared to be recognised by the participants in this research, with a number of possible implications emerging from this on-the-ground interpretation captured here. This extends to the questions surrounding the definition of CM and CM practices and their boundaries with other practices that were found to be at the front of practitioners' minds, such as in the emerging discussion around 'dryneedling'. Structural features that were or are further becoming established in CM in Australia, including more research and the provision of post-graduate and continuing education for practitioners, were viewed in distinct ways and these findings may have implications for future developments of these formal frameworks.

It was perceived that CM in Australia was historically and at the time of this research and the introduction of national regulation, undergoing a process of professionalization and wider cultural acceptance. This third major area uncovered here shows CM practitioners and key stakeholders as actively and openly engaging with this development. While concern emerged regarding the potential pros and cons and current uncertainties around national registration, and confusion between the roles of the regulator and professional associations revealed, CM was viewed overall as developing as a profession in positive ways. And indeed even more professional features were desired, such as more professional support in the transition to practice after graduating and in further developing professional attributes. There was a

diversity of perceptions regarding the relationship between CM and WM, and the differences and commonalities emerging will hopefully add to our greater understanding of both fields.

Ethnographic studies of CM practice in China form a solid basis for the qualitative component to this thesis. The use of ethnographic methods, including interviews, has provided rich insight for the West in how CM is practiced and the nature of CM knowledge. While the qualitative study presented here is not purely ethnographic, it nonetheless drew upon an open-ended, semi-structured methodology in an attempt to explore participant's perspectives from within their field of experience at work, as much as possible. As we have discovered here in our enquiry into Australian practitioners perspectives and the nature of their practice, Scheid (2), revealed through his work that CM practitioners in China work within a plurality of methods and discourses. CM practitioners were found to learn and practice CM in a range of ways and settings but also exhibited common features.

There have been a few investigations into CM practice in Western countries using qualitative interviews to explore practitioner and student perspectives. Dowie (292) interviewed acupuncture students in the UK about their perspectives on their personal and professional maturation. Dowie (292) found that they are concerned with obtaining a level of professional detachment from their patients and the treatment outcome, but at the same time are aware of the huge impact reflection and the understanding of the philosophies underlying CM has on their practice and personal lives. Participants reported a need to incorporate their understanding of CM principles and philosophies into their own lives in order to feel effective and maintain integrity in their clinical practice. The commitment to professional and personal development uncovered reflects the nature of CM as being more than just a form of knowledge or set of skills to be learnt, but a way of life. This understanding of CM practice, as involving life-long learning and encompassing significant professional and personal identification, emerged in the findings of this study also.

Another study investigating practitioner's experience of their practice sought to capture the views of CM practitioners in Australia who had been practicing for over twenty years (71). Again, the experience of practising CM was found to provide practitioners and their patients, the space to experience personal discovery and develop their knowledge of CM ideas in relation to their physical health and wider being in the world (71). CM philosophy, and in particular the concept of qi, was found to be embedded within the practice and 'lived experience' of CM practitioners, and their reflections on their ever-developing knowledge, in partnership with their patients. The postmodern culture of the West was seen as contributing

to the attraction and understanding of CM on behalf of practitioners and patients, and again, CM was embraced by both as a way of life and a phenomenological way of deepening one's understanding of life, and health.

The idea of practitioners working in partnership with their patients, and the finding that the CM practitioners interviewed here view patients as capable of significant self-determination and self-responsibility, are supported by the underlying eastern philosophies of CM. The importance and potential for patient empowerment, and the multi-dimensional quality of the patient-practitioner relationship, are reflected strongly in these results. These findings are balanced by the realisation of the interconnected nature of life, as viewed by CM practitioners. Understanding life and wellness within the active, theoretical frameworks provided by CM, appears to empower both CM practitioners and their patients (293). And as we have previously alluded to, this inherently ethical frame is further strengthened by the dynamic view of the patient, their illness, and the patient-practitioner relationship in CM. The therapeutic space in CM can be conceptualised as containing equivalent room for practitioner neutrality and empathy and their many yet specific manifestations within the CM consultation (294). This longstanding recognition of the constantly changing interplay between 'clinician's gaze' and interpersonal connection in CM practice is demonstrable and complex, and we have seen in the results presented here that CM practitioners in Australia are aware of and engaged in elaborate negotiation, communication and reflections, between multiple CM and Western medical, social and cultural discourses and phenomena.

Interviews with acupuncturists in the UK identified a number of themes around acupuncture practice and its integration with WM (295). The findings are similar to those presented here, and included the finding that acupuncture practitioners valued the eastern philosophies underlying their practice that emphasise holism and balance in maintaining and restoring health (295). Acupuncture practitioners in the UK study were also found to place importance on the practitioner-patient relationship and patient involvement in healing, but at the same time considered further research with improved methodologies that were accepted by both WM and CM, as important to the wider public acceptance of acupuncture. Integration of acupuncture with mainstream medicine was considered to provide more holistic care, greater prevention especially of chronic diseases, and increased public engagement with mainstream medicine (295). The findings we have presented in this chapter expand on this to include the finding that CM practitioners in Australia consider CM a field of practice in its own right, represented for the first time in the discussions around 'dryneedling'(296). CM practitioners

value not only their own professional development within the CM field, but the wider recognition of their practice in the form of national registration. This is even despite the potential fear of loss of diversity and autonomy in their CM clinical practice as a result of this. CM practitioners seen here actively and continually seek effectiveness from their treatments within the framework of CM, and while relying on the CM theoretical framework, they simultaneously practice in a way that embraces the Australian health care environment, professional behaviours and communication, and the presiding cultural discourse around the biological body and disease as held by their patients and other healthcare professionals. As in Ferrigno's 2007 study (71), CM practitioners are found to be translating and embodying CM ideals with their patients, and as we have found here, in their wider professional interactions.

These findings are in contradiction to commentary on the inability of the WM 'paradigm' to integrate with alternative views on the body (297). Parker (297) argues that the 'multicultural-pluralistic model' of integrated care is ethically and epistemologically unjustified, compared to a 'totally integrated evidence-based model' of healthcare. As we have previously discussed, and as I am all too aware I may be in danger of doing inadvertently so in this work, 'paradigms' are not so easily defined, and understood to be socially constructed. Their usefulness therefore in conceptualising, observing and comparing pluralistic methodologies, such as CM, is contentious (14, 136, 298). Parkers' (297) argument may well be sound according to the parameters set out within scientific WM, but it lacks consistency with regards to the findings here – that CM practitioners can be seen to be practising within the internally logical framework of CM, and yet also situate themselves within the biomedical healthcare environment dominant in Australia. This seemingly postmodern reality, where multiple viewpoints are allowed varying and equally standing, is also in opposition to the many and increasing varieties of viewpoints being expressed and engaged with by WM practitioners and patients, particularly with regards to the use and legitimacy of CAMs. For example, Oguamanam (299) explores the increasing integration of CAMs by Western doctors and patients despite the superior political status of WM, and argues that education in CAMs is the means by which to realise a state of successful methodological engagement between these fields. The realisation that both CM and WM practice takes places within a pluralistic environment of several distinctive and overlapping epistemologies, including patient and practitioners phenomenology, is keenly exemplified in this thesis.

6.4 Conclusion

This chapter has presented the key findings from the qualitative interviews carried out as part of the CM in Australia study. The nature of this enquiry has led to a detailed insight into the perspectives and concerns of CM practitioners and key stakeholders in Australia, at this important time in the development of CM in Australia. CM practitioners have here been found to be engaged in a diverse range of CM theoretical and practical structures in a number of complex ways. They carry a wide range of views around the nature of their practice in Australia and conceive of themselves as practitioners of CM in a personal and reflective manner. The variety of evidence they seek out, value and incorporate in their practice from CM, WM, and other sources may be seen to demonstrate a complex level of conceptual and practical adaptability. Practitioners and key stakeholders in CM in Australia are found to display a variety of professional behaviours. Developing professional structures, such as tertiary and continued education, may be found to be emerging, and more are desired, such as more support for new graduates and small business training. Finally, practitioners and key stakeholders in CM in Australia express both an openness and apprehension about the application of western structures, such as registration, EBM research methods and 'dryneedling', upon CM practice in Australia. Documenting the practice of CM and its development as a profession represents a significant contribution to our understanding of the practice of CM and its professionalization. These results will be discussed further, in combination with the conceptual summary from the first part of this thesis and the results from the CM in Australia survey, in the next chapter.

Part Four

Chapter 7: Discussion

The purpose of this section of the work is to draw together and interpret the findings from the survey and interviews of CM practitioners and key stakeholders in Australia in light of our previous research and the theoretical chapters. From these results, and with reference to the previous chapters, we will be able to re-contextualise CM in Australia and discuss areas of implications for the further development of CM in Australia. These findings will be considered at the level of an individual practitioner's practice and at the macro level of wider institutional and structural changes. Finally, I will make some concluding remarks upon this discussion, and the possible role of authority, in these areas.

Educated and currently practising in CM, in this work I have also relied upon my background as a Western educated student of philosophy and research methods. The nature of this enquiry therefore comes from within the CM framework and a western perspective. The self-reflexive nature of this investigation calls upon the ideas and method of 'negative dialectics', whereby phenomena are inhabited and interrogated from within (300). In this case, I am attempting to conceptualise the practice of CM in Australia, its place within the Australian healthcare system, and the space between these.

7.1 Nature of practice

CM practice in Australia can be seen here to be of a complex and diverse nature. Not only are CM practitioners mostly born in Australia, but they come with a range of previous life and employment experiences. Their education levels are high, predominantly being degree level, as in the last twenty years CM has been offered at the tertiary level, with a curriculum that is close to that in China, as well as often having a large biomedical component. Despite this, they have specified here in this survey that they have mostly chosen a career in CM because they are attracted to the philosophy and worldview it embodies. They have also indicated that their experiences with CM, either for themselves or with a family member, affected their decision to study and practise CM. This is a new contribution to the research describing CM practice in the West. As we have also seen here for the first time, the value placed on experience as an accepted form of knowing and knowledge is a key attitudinal feature of Australian CM practitioners. This recognition of the personal dimensions of experience, and the acknowledgement of that realm in the area of health and healing, found in the practitioner patient relationship and in the theory and practice of CM, has also been demonstrated in the

results. These features of CM practitioners that have been discovered may have implications for the way we think about medicine. I shall discuss these further later in this chapter.

As overviewed in Chapter Two, CM has a long history, with a complex set of theories and practices. And as can be seen as a result of this research, CM practitioners in Australia are not only using a number of CM treatment modalities, in particular acupuncture, CHM and CM massage, but they are calling on a variety of Chinese medical theoretical structures to guide their clinical decision making and these treatment choices. This complexity of approaches may be appreciated especially when we consider the power this allows the CM practitioner to enable significant treatment specificity and at the same time offer a highly individualised set of options to the patient. This aligns with the respect given to experienced practitioners, who through their experience may have a set of highly refined skills in cognising which CM theory may best guide their diagnosis and treatment approach. While there is in-built in the CM domain a vast amount of theoretical structures and treatment modes available to the practitioner, at the same time in this research we can see some practitioners choosing to align themselves especially with particular systems of practice or schools of thought, such as Toyahari or five element acupuncture. This may be observed particularly with adherence to classical schools of thought. The potential for a practitioner to either enact multiple, concurrent treatment methods or follow one line of CM thinking in their practice to a deeply specialised degree reflects the inherent complexity and power of the CM theoretical structure in clinical practice, and the vast variety of evidences available to and valued by practitioners.

Of special interest is the high level of consideration the patient's viewpoint is given by CM practitioners. Patients' experiences, signs and symptoms, and preferences and values, are highly appreciated and respected by CM practitioners, not just as a form of evidence, but as a central axis of the clinical encounter. Further to this, the practitioners' experience and their observations and perspectives within (and outside of) the clinical interaction are given high standing in the clinical construct and perceived effectiveness of CM. This inherent inclusion of the practitioner and patient is a hallmark feature of the CM episteme, from which problems such as the placebo found in other methods of evaluating clinical practice are rendered obsolete. Instead, the primacy of the patient and practitioners' involvement in the medical encounter is in-built.

To add to the discussion on evidence in CM are the perspectives of CM practitioners on classical forms of evidence and their relevance to clinical success. As the results from the survey and interviews strongly suggest, many practitioners highly value classical sources of CM

knowledge. Indeed, they consider classical evidence to be one of CM's most important features. The idea that CM knowledge has been 'time-tested' by practitioners over centuries was often repeated by survey respondents and interviewees, and was a main feature perceived to differentiate CM from other forms of healthcare in Australia. Again, we see experience as an accepted, valued form of knowledge. Emerging from the interviews it was also discovered that practitioners often found classical texts and textbooks to be more relevant and useful in clinical practice than recent research findings from EBM methodologies. At the same time, however, they reported valuing evidence from EBM research highly. Overall, practitioners appear to perceive that EBM research is necessary for the practice of CM to gain external validity in the eyes of others, and in particular WM. Yet again, practitioners felt that it remained of less use to their success in their own clinical practice.

With these results we may want to reconceptualise our understanding of evidence in medicine, and the place of 'wisdom'. While the CM identity can be argued to be embedded within its historical and ongoing context, in its use of the reductionist method WM can be seen to be trying to separate itself from history and experiential evidence. Yet in the findings reported here, wisdom is found in the value practitioners place on experience, and the respect given to some elders, as practitioners or teachers. Even though in recent times there has been a distinct emphasis on research evidence and a relative devaluation of clinical expertise in Western medicine, this form of experiential evidence can still be found to be alive and influential, for example in the 'hidden curriculum' found in medical education, with the influence that clinical supervisors and teachers can have on developing practitioners (301). Ironically, this is also seen in the authority given to EBM, originally formulated and supported by a well-respected group within the medical profession, despite its continued lack of mechanistic demonstration in its own terms (212). The challenges in the successful use of clinical practice guidelines reported by clinicians, and the increasing reliance on the collation of evidence in systematic reviews and meta-analyses, further support the existence of and reliance on this type of evidence in medicine.

The re-collection of evidence, from singular research observations upon individual variables, is partly an attempt to reconceptualise these individual evidences within their historical context, in reference to each other, and therefore give them meaning. It is this meaning, the interpretation of our individual state within a larger evidentiary framework, which is provided by an experienced practitioner. This experience is not concrete, but open, enquiring, and involves on-going learning, at the same time as it recognises what has been learnt from the

past. That there is a pre-existing episteme in CM that accepts wisdom from experience gives us the opportunity to reconsider its value and place within our larger understanding of medical practice. Practitioner authority may partly derive from this state of of flux, in which knowledge is derived from a stable system of thought, experience involving its practical application, and continual openness and inquiry.

CM practitioners in Australia can be seen here to be far and away most concerned with their clinical effectiveness, and the satisfaction of their patients. We have found that clinical effectiveness in the form of successful treatment outcomes is extremely important to CM practitioners. However this success may be measured by them in a number of ways. For example, an effective treatment may be determined by: the reduction or cessation of signs and symptoms; the patient reporting that they were happier and feeling better even if their complaint was still present; or by noting non-specific effects with the lessening of other seemingly unrelated, secondary concerns. So while the majority of practitioners are clearly driven by clinical results, these results can include the patients' own evaluations of their conditions and their experiences.

Further to this is the finding that CM practitioners are aware of their clinical practice as inherently involving various aspects of change. CM practitioners realise that their patients, themselves, the environment, the CM field, and the society at large, are in a constant state of change, and a number of practitioners talked about the need to embrace change and uncertainty in their approach to practising. Built into the philosophy of CM, this approach to health and healing, and in life in general, allows CM practitioners to be mindful of the unknown and the unseen, in their practice. This may be seen as a weakness, for if one is aware that there exist phenomena one may not know or see in clinical practice, or that are in a state of change, one could be considered to be 'on the back foot' or deficient in skill or knowledge. But rather, many practitioners perceive this as a strength in their ability to practise CM, for they may be open to new and changing conditions, and they recognise that they may continually develop and expand their experience and knowledge. Similarly, there is room for each patient to be approached as an individual in their own right, in their own state, in each session. This may be seen to be a fundamentally ethical standpoint, and as part of the philosophical appeal for CM practitioners in Australia to CM practice.

The recognition of the constantly changing nature of life, and illness, by CM practitioners, may help explain the finding that they value their continuing professional development highly. Interviewees repeatedly emphasised their appreciation of ongoing professional development

opportunities and expressed a strong desire for more, particularly in the transition from university and the early years of practice. In particular, practitioners wanted more support from their professional associations in the establishment and development of small business and professional skills. However, a number of participants also talked about wanting to know more about acupuncture and meridian theory in order to improve their clinical results. These participants actively sought further training for themselves in this area, often looking towards Japanese meridian therapies. Many talked about their mentors and how important they were in helping with difficult cases, setting up and running a clinic, and gaining confidence and hidden skills, such as reception work and patient counselling. This was found in both the survey responses and the interview themes. We will return again to this question of professional development, for the predominant call from practitioners was for some kind of formal transitional support to be provided. In particular, the recently graduated practitioners interviewed talked intensely about their difficulties in clinical practice and the different ways in which they coped with these. CPD was seen by all practitioners as necessary, desired, and must be related to their clinical practice and improved patient outcomes.

Practitioners demonstrated a high level of awareness about professional behaviours apart from just engaging in CPD. These include for example, patient referral habits, receipting practices, note taking, detailed labelling of herbal formulas, and reporting of adverse events. Word of mouth was considered the most effective referral mechanism for obtaining new clients; however many practitioners report developing and maintaining referral networks with other practitioners such as osteopaths, GPs, and midwives Although a third of practitioners in the survey reported a language apart from English as being their first language, the majority (nearly 99%) saying that they practised in English. Despite this being a significant concern for the CM community in the transition to national regulation in 2012, these results suggest that overall, wherever practitioners came from, they predominantly acculturated to Australian professional expectations. At the same time, a proportion also reported practising in languages other than English as well, reflecting a diverse workforce and patient demographic.

7.2 Chinese medicine in a Western healthcare setting (Australia)

CM practice takes on a unique position in the Australian health care setting, as it can be seen to be composed of ideas and a systematic approach developed over a long period of time mainly within the geography and culture of China. The philosophical ideas underlying CM

practice appear at first to distinctly contrast with the ideas underlying our Western biological habitus. Having said that, upon investigation we can see a number of ways in which these ideas, over-simply characterised as Eastern versus Western, intersect and reflect each other in meaningful ways. Also, we may now understand that the appeal to practise CM in Australia might be partly explained by a potent identification with the ontological and phenomenological ideas underlying CM. In particular, the realisation of the ideas of: holism; the inclusion and allowance for multiple variables; and the unchanging premise of the changing state of being and change; that may culminate in the personal and professional expression of the essential CM theories of qi and yin and yang. This approach towards life, originating from the seemingly contrasting cultural environment of China, is nonetheless taken up and engaged with by a proportion of these practitioners (including this author) who have been brought up within the Western socio-philosophical complex.

The recognition of this difference between the fundamentally alternative understandings of life and being that lie underneath CM and Western health practices is superficially obvious. As I have attempted to articulate in the first half of this thesis, the theoretical and practical negotiation between these two 'paradigms' has and is being explored by many. It has been largely understood that a singular nexus between CM and WM domains may not be easily explained. For on the face of it, when we attempt to define CM in contrast to WM we find that CM may be largely characterised by a multi-therapeutic systems approach based on Taoist, Confucian and Buddhist foundations, whereas the WM approach overall may define itself as aligned with scientific ideals based in Aristotelian and individualised thinking. By looking at how CM practitioners in Australia practise within a Western-ideological healthcare system, and how they define their practice and their values, we have hoped to gain some insight into this intersection between two apparently contrasting systems of health and healing. The results from the national survey and in-depth interviews suggest that in various ways, CM practitioners in Australia are not only thriving in their CM practices in Australia, but they are doing so in a Western healthcare environment with Western patients. CM practitioners can be seen here to be emphatically aligning themselves with the classical CM values of holism and prevention. They appear to acknowledge and strongly value the idea of health and illness as relational and interacting with external and internal factors, such as the weather, environment, family setting, community, lifestyle, diet, exercise, beliefs, and emotions. They often embrace Confucian respect for previous generations, teachers, classical texts and experiential wisdom. Their personal and professional self-conception is located in-situ with the philosophies of the interconnected and correspondent nature of phenomena found in CM.

However, we may ask whether this interpretation of CM by CM practitioners in Australia is the whole story. For what we in the West may see in CM may be what we want to see. The Western individualistic psychology can be argued to have led us to an era of self-help and seeking. In the philosophical sense, the extreme experience of one ontology leads to the realisation of the other, or the yang that becomes yin. This can be seen in the personal and familial stories of illness and seeking that interviewees in this research shared about their journey to CM, suggesting a dissatisfaction and desire for other ways of being in the world and in our bodies. As a result, we as Westerners may look to other concepts and ways of thinking, and in particular the ideas found in the East of connectedness and its underlying explanation of qi.

Not only must we consider the Western interpretation of CM, but we must also take into account the nature of the dissemination of CM from China to the West. The systemisation of CM knowledge in the state-administered development of formal textbooks and education in the last century has directly shaped the development of CM inside and outside of China (2). It has been argued that CM theories and practices have been politicised and presented in a largely Westernised manner, and in its translation key features of its essence may have been lost. Also, it may be argued that in the process of translation some traditional features of CM, such as the extent to which its practices are localised by geography and practitioner, have been amalgamated or discarded in order to make it more palpable and appealing to the Western mind. There is a danger in looking at CM through Western eyes, in the reduction of its concepts, the removal of historical aspects, and the Western tendency towards division and separation (302). The CM identity is embedded in its historical context, when compared with WM which could be argued to be trying to separate itself from history. Application of the Western biomedical model and systemisation of CM is changing our conceptualisation of CM, and we must look to history in order to really understand CM knowledge (303). Mindfulness and proper scholarship towards the differences between CM and WM worldviews may benefit both systems of thought (304). But further to this, we may also find benefit in realising their similarities.

It is important to avoid simplistic characteristics of ‘East’ and ‘West’, and we may find the one within the other. Indeed in appealing to history, or to science, and even in the attempt at the ‘clinician’s gaze’, we find in both CM and WM a search for the timelessness of forms that may bring with it a universal validity. In contrast to this, from the results of this study, we may see that the identification with CM ideas by those in Australia is often because the ideas resonate

on a personal level. This is the yin within the yang, or vice versa. Likewise, some of the CM ideas that have been collated for export to the West are the foundational ideas of CM that have been amenable to contextualisation and interpretation in a Western sense. And topics in WM, such as the concept of the placebo, suggest this potential for alternative explanatory models to arise from within. We cannot separate our practice of medicine from the philosophy underlying it. The philosophies underlying CM, that encompass for example holism, process and change (305), may resonate with ideas we already have, such as systems and complexity theories, and at the same time contribute to the way we view our lives and our place within life.

CM practitioners in Australia are seen here to be actively retaining and practising the traditional aspects of CM, while simultaneously practising in a Western culture within an evidence-based health care system. This situation can be argued to differ from some other countries, where an increasing emphasis on integration between CM and WM has potentially eroded the classical aspects of CM in favour of a more Westernised, standardised terminology and approach to the body. It has been proposed that the extent to which CM practitioners incorporate a biomedical diagnosis may be placed on a continuum of evidentiary value, depending on how relevant the diagnosis is considered to be to the CM diagnosis and treatment (306). This supports the idea that while Western medical concepts can be important, the evaluation of the diagnostic and treatment context in CM terms is fundamental to CM clinical practice. And as we can see here, while some CM practitioners in Australia are at one time talking about their patient communication regarding their treatment approach in biomedical terms, they are in the next talking about how much they value what they have learnt from a classical text or mentor. This ability to go above and beyond, in a conceptual and professional sense, is a noteworthy theme emerging from this research. Not only are CM practitioners concerned with remaining true to CM historical themes and concepts, but as this study suggests, they are creating and enacting sophisticated methods of communicating and practising CM in a Western healthcare environment. And, overall they appear comfortable doing so.

From this we may discover possible mechanisms for travelling within and between seemingly different systems of thought, such as CM and WM. And perhaps we may be able to acknowledge that there is not necessarily one valid way of practising medicine and healing, but rather multiple systems that can act within themselves and with each other simultaneously. The ability for CM practitioners in Australia to perceive a professional and epistemological

identity under the auspices of a medical system that embraces change and has room for dissonance, such as the CM being practised by the practitioners in this study, may subsequently allow for individual interpretation, application and evolution of features of that system. And as we have found, it is this individuation of patient and practitioner experience that is one of the most distinctive, appealing features of CM for practitioners in Australia. The systematic complexity allowed for and encouraged within CM, which makes it so elusive to Western scientific methods, may be what allows Australian practitioners, and perhaps patients also, to find themselves and their unique places within time and space.

The complex medical practice of CM is observed here in the Australian health care setting and the recent inclusion of CM into national regulation, with its elaborate set of practice and professional standards. These requirements bring with them ongoing financial and behavioural investment on behalf of CM practitioners. In line with the expectations of a professional, these are expected to be largely self-administered. Continuing education and professional behaviours must be maintained, in line with changing regulatory and professional standards. That these expectations are met may appear reasonable to the Australian person, and are demonstrated in the results here to be strongly desired by the CM community. However, it must also be acknowledged, and this theme arises strongly within the findings of this research, that these increasingly demanding professional standards are required in an environment where there are not yet the structural forces to support the individual practitioner in the achievement of these standards. We conclude from this research that these professional standards are largely being achieved by the CM community. Yet these bring with them significant financial cost, on top of the already significant costs, time and skills required to maintain a successful practice within the small business environment. There is anecdotal evidence that the drop-out rate of new practitioners after university is considerable, and we have heard from the recently graduated practitioners studied here about the many pressures and challenges of establishing a successful practice in a developing field that has little formal transitional and ongoing practitioner support. Although as we have seen it is being increasingly accepted by the Australian public, overall CM is still non-mainstream and lacks some of the structural features of an accepted profession, like transitional and ongoing professional support for its members, such as required internships and support for CPD. The display of professional features by CM practitioners in this study, suggest that perhaps this area may now be worth further consideration.

Current questions in the CM field in Australia that are of concern to practitioners are the questions of definition and the boundaries of CM practice. This is being brought to a head by the increasing discussion around dryneedling – how to define it and its practice parameters (296). The desire to understand and contribute to an internal definition of CM in Australia was a key motivator underlying this research, partly as a result of this increasing concern. As we saw in a previous chapter, through entry requirements and ongoing regulation, established professions such as WM exhibit a level of control over their boundaries of practice – controlling who may and who may not practise under their scope of practice. The recent introduction of regulation in Victoria may be argued to have led to development of the term 'dryneedling', as a way for practitioners in other fields to continue their acupuncture practice without being held to the regulatory legislation, which falls under use of the title, 'acupuncture' and 'acupuncturist'. However, when we examine the literature on professions it is accepted that among other features, a specialised field of practice that requires lengthy education and is often regulated, are hallmark features of any profession. For CM practitioners in Australia to arguably have acupuncture, a key feature of their practice being carried out by other professionals who have limited education in the area, is potentially very undermining for the field and as a result has sparked much debate. Some are arguing that 'dryneedling' may be defined as a fundamentally different practice to acupuncture, based on the biomedical theory of trigger points that shows it is an underlying different technique. Yet despite this we can see in this research that CM practitioners are nonetheless expressing a large amount of concern over the use of 'dryneedling' and acupuncture techniques by other practitioners in their local area, such as physiotherapists, myotherapists, osteopaths and chiropractors, in direct relation to the local practice.

In relation to this increasing use of 'dryneedling' by other modalities, the CM practitioners interviewed in this research expressed a range of responses, from diffidence to anger. Overall the largest concern was towards the effect it may be having on patients. CM practitioners talked about their experiences with their patients, many of whom believe that the 'dryneedling' they had received from another type of practitioner was acupuncture. Practitioners talked about the misuse of acupuncture points, as well as side effects such as pain that were reported to them by their patients after receiving 'dryneedling', again which they had often understood as acupuncture. The use of techniques by practitioners other than CM was largely regarded as inappropriate and threatening to the integrity of CM practice. Overall, practitioners experienced both hope and doubt that the introduction of national regulation would address these concerns effectively.

Another component to this question of boundary is that of the inclusion of CM practices under Medicare, which survey respondents reported as being one of the most important future issues for CM in Australia. The questions surrounding the definition and safety of 'dryneedling', and the use of acupuncture by others who have much less domain-specific education, are pressing. The findings here support further enquiry into public perceptions of acupuncture and 'dryneedling', in order to ensure accurate patient education and the continued and safe practice of CM and its techniques in Australia.

One of the ways in which it has been assumed that CM in Australia may gain increased acceptance is through research. This resonates with endeavours in other countries, particularly China, where more and more research in CM is being carried out. As we have discussed, significant challenges have arisen in the use of placebo-controlled and population-based evaluation methods such as RCTs. In Australia, there is a relatively small amount of funding available each year for research in the area of CM. This limits the amount of evidence available to further improve the understanding and acceptance of CM and also limits the refinement of specific methodologies to more accurately capture the effectiveness of CM. It has been shown in this study is that CM practitioners and other key stakeholders are supportive of the research endeavour overall, and believe that it will lead over time to an increased comprehension and public acceptance of CM. Yet at the same time there were a number of interviewees who talked about the limitations of research findings for their practice and for the overall development of the profession. This ambivalence towards research, seen in comments such as 'I take it with a grain of salt', and 'I take a wait and see approach', suggests that while overall participants valued research, they commonly placed it in a wider context that included their CM practice, experience and values. Even though they appeared to recognise the usefulness of EBM research in helping to translate CM into the Western framework, participants acknowledged its limitations, and particularly in its translation to individual patients. That CM practitioners are able to practise in this state of conceptual dissonance, between CM and WM methods and evaluations of effectiveness, is a key finding of this study that demands further thought.

The nature of education is another systemic component of CM in Australia that was investigated. As we have seen, CM practitioners are highly educated and often come with previous qualifications, although there are a proportion of practitioners who began study straight after high school. From both the survey and the interviews, results indicate that practitioners highly valued the clinical component of their CM education, but at the same time

wanted more and varied, ongoing supervised clinical opportunities. This is in line with previous research findings. Participants often talked highly about their clinical training in China, stating that it helped consolidate their theoretical and clinical expertise. Some mentioned the challenges of learning CM theory as such a different form of thought, as well as the challenge of also learning a significant amount of biomedicine in the degree, and needing to conceptually 'swap' between paradigms. All talked about their love for learning CM, and most also expressed an appreciation and understanding towards learning biomedical theory. A further contribution of this research is the content of the discussion arising around the business and clinical management subjects, as almost all interviewees who were new graduates said they would have liked more to have been provided during their undergraduate training. Although we can see in the results of this study that it the practice of CM in Australia is in a state of professionalization and change, CM practice is still mostly occurring in private practice and not in larger institutions such as hospitals, like in China. The recognition of the realities of practising CM in the Australian small business and professional practice environment, and the need for curricula designed to support this, is therefore highlighted by these research findings.

In addition to adding to the appreciation of the development of more specialised postgraduate education options, the results here suggest that changes may be made to current tertiary educational models and in Australia, in order to reflect better both the current needs of CM practitioners and the nature of CM itself. This may also encompass more developed education in comparative analysis and alternative research models that include qualitative or mixed-methods design, as used in this thesis.

As discussed in previous chapters, the quantitative and qualitative methods chosen for this investigation are limited by many factors. Quantitative studies are limited by schematic and partial representations of the populations under investigation. Qualitative investigations are subject to under certain or incomplete generalizability to the wider groups of people being explored. Despite these and many other limitations, the quantitative and qualitative methods were chosen here for their particular abilities to display key features of the primary CM practitioner workforce in Australia. Like CM itself, surveys and interviews are descriptive and allow the participants room to respond in ways that reflect their perspective and experiences. This study demonstrates the fecundity of this approach and suggests that mixed-methods research might be more used to investigate CM and other forms of medical practice.

7.3 Development of a profession

This research depicts a unique moment in time documenting practitioner and key stakeholder perspectives during the process of a medical discipline becoming professionalised. This process has been taking place over a number of decades in Australia, from the institutionalisation of CM education in the 1980s and the formation of CM professional associations, to the introduction of regulation in the state of Victoria in 2000, and most recently with the inclusion of CM in the national healthcare practitioner registration system in July 2012. This research demonstrates a number of unique findings related to the last development.

At the time this project was undertaken, just before national regulation was brought into effect, CM practitioners expressed a variety of views regarding the upcoming introduction of national registration. We see that CM practitioners view national registration as overwhelmingly positive, particularly in terms of the status of the profession and standards of practice. In the interviews it emerged, however, that some practitioners, especially from Victoria, were much more reserved in their views towards registration. A handful of practitioners talked guardedly about their own and their colleagues' experiences with regulation there. They expressed concern about the way in which registration had been carried out in Victoria and in its translation to the national level. At the same time they were hopeful that the experience of national registration would be positive overall for practitioners. Practitioners in both the survey and interviews considered the impact on income as the most negative aspect of registration. The annual cost of registration was considered relatively high, and practitioners were aware of the expense and saw it is impacting considerably on their practice. The requirements of registration and the costs associated with increasing professionalization lead to the suggestion that CM practitioners consider increasing their consultation charges to cover increasing professional costs and to more adequately reflect the professional standing of CM practice in Australia.

The finding that CM practitioners are concerned about the financial impact of registration and professional costs ties into the theme that CM practitioners in Australia appear to be confused about the roles of the registration body and their professional associations. This emerged strongly out of the survey and the interviews. Participants in the interviews were clearly able to recognise that registration had been instigated in a response to a perceived need to 'protect the public'. Nonetheless, many practitioners also felt that they had been led to believe that registration would also improve the public perception and provide support for practitioners. A handful of participants who had been registered in Victoria talked about their disappointment

that this had not necessarily occurred in Victoria, and their hope that this would be different in the national experience. When discussing the topic of professional support in particular, it was common for interviewees to talk about their expectations of national registration and their professional associations interchangeably. This confusion was also found when discussing whose role they thought it was to educate the public about CM. Accordingly, this highlights the need for the registration body and professional associations to consider this issue further.

This lack of clarity over the role of the registration body also appears to translate into an apprehension that practitioners might potentially lose some control of their CM practice, as under APRHA CM would be treated like other regulated health care disciplines. It was widely regarded that the many and varied unique features of CM may be under threat with its increased regulation and further institutionalisation. Excessively rigorous standardisation of CM practices was viewed with concern by most participants. Although practitioners valued the increased public awareness and acceptance that they perceived resulting from national registration, overall they expressed an emphatic desire to maintain the features of CM they considered differentiated it from other forms of health care in Australia. This was also the case regarding research into CM and the use of EBM methods in evaluating CM. It was also clearly expressed in a consistent desire of practitioners' to maintain control over the practices considered unique to CM, such as acupuncture, with regard to its use by other health professions.

The need for more professional support was a resounding finding in this study, from both the survey and the interviews. This is perhaps not surprising, considering also that the high uptake of professional behaviours by CM practitioners in Australia found here is likely to reflect the surrounding healthcare environment and expectations. While practitioners demonstrate a high level of professional communication, referral and CPD behaviours, it was found that they can and want to develop more in these areas. And, as has already mentioned, they want to develop more skills in business development and management and CM techniques and knowledge. This is particularly apparent from the enquiry into practitioners' experience during their transition from university to practice, where new practitioners are found to be under a great deal of stress in establishing their practice in the early years. That new CM practitioners display the high level of professional behaviours observed in this study, despite the pressures of establishing a practice, exemplifies the theme found of 'going above and beyond'. New CM practitioners can be observed as being largely self-motivated at this time. Professionalism and the set of behaviours it encompasses, such as communication skills and referring clients, are

important features of an accepted profession. As has been found here, while there is a necessary and strong demand for further development of these behaviours in the Australian CM practitioner population, these practitioners already embody a remarkably high level of professionalism in their practice conduct and communications.

As we have already discussed, one of the key findings of this research is that there is a widely expressed desire for more professional support opportunities for CM practitioners. Based on the practitioner and key stakeholder perspectives studied here, this support may look to be provided by CM professional associations to their members. When asked what form of support they would like, survey respondents as well as interviewees wanted some form of mentoring or clinical supervision such as an internship. When we look to the model of support for the transition from university to unsupervised practice provided by other professions, such as WM, this may be seen as a next step in the structural formalisation of a profession. For example, in WM, this professional development is provided by speciality associations, which control their membership and the development of specialty practices. This may be carried out in conjunction with postgraduate education opportunities, of which there are very few available in CM in Australia at this time. CPD structures may be developed so that they are in line with other professions and the requirements of external bodies, but at the same time support the internal diversity of CM practices. This research may therefore allow CM educators and associations to better consider the future shape of speciality practices, CPD and post-graduate education avenues for CM practitioners.

Another area for further investigation coming out of this research is that of increasing need for the development of professional referral networks by CM practitioners with other modes of healthcare. This would provide further opportunities for practitioners to establish their qualifications as specialised practitioners in CM and to develop professional communication skills. Seen to be in accordance with the professional literature, professions enact specialised technical practices, and engage in subsequent referral behaviours with other speciality practices. This enables professionals to build their practices without the need for advertisements or testimonials, as one of the requirements of registration. By participating more in the referral network of health care professionals, CM practitioners may also be more easily recognised as holding the best interests of their patients in mind.

Associated with this is the recognition of CM practice as a stand-alone profession by other practices. This is important, and as this research suggests CM practitioners, researchers and educators are already engaging in a complex and local discourses that involve translating and

informing their patients and other healthcare professionals. Continuing to nourish this aspect of professionalism in CM practitioners will help increase the overall recognition of CM as a valid and specialised option for healthcare in Australia.

As we can see from this study, the practice of CM in Australia unequivocally satisfies the main characteristic criteria of a profession. It can be seen to have an expert body of knowledge with associated technical skills, and a normative set of ethical ideas that centre strongly around patient autonomy and beneficence. Professional behaviours such as CPD, professional communication, and self-regulated standards of practice are well-accepted. It enacts a set of structural features similar to that of other professions, with legislated regulation over its practitioners and its own professional associations who have their own membership and ongoing criteria. Education is established at the tertiary level, and practitioners are highly educated in the technical streams of CM and WM. There is a rapidly increasing community of practitioners who interact on local and wider levels with their peers, other practitioners at their workplaces, seminars, online, networking opportunities, conferences and through self-arranged mentoring.

Some features of a profession such as status, income and rewards (130), however, can be seen here to be less established. As registration, further education and research of CM will continue to contribute to the status of CM in Australia, the need to reconcile this through increased recognition by other professions and commensurate income and rewards for practitioners becomes more salient. As we have also discussed, the need to attribute technical autonomy over CM practices is also of essential importance to the recognition and standing of CM as a safe and valid practice in Australia. The allowance of an exception to the criteria of what may define a profession, in relation to CM, is potentially of great detriment to the development of CM in Australia, because it allows CM practices and associated knowledge to be acquired and subverted by other practices. The use of CM derived techniques such as 'dryneedling' and acupuncture techniques by GPs, osteopaths, physiotherapists, chiropractors and other practitioners arguably undermines the clinical integrity of CM and the wider recognition of CM as a profession. This issue may now be addressed further by the health care community as a whole, as CM in Australia has been demonstrated here to warrant professional status.

In considering the practice of CM in a Western setting and the process of professionalization of CM in Australia in this study, a number of potentially overlapping spaces between the CM and WM epistemes have been observed. In particular, the issue of 'dryneedling', which brings into stark relief the interactive boundary surfaces between CM and other Western practices.

Boundary construction of emerging professions may be understood as a process that involves both internal and external social and institutional factors (307). Realised as a process in action, the practitioners' concerns that are identified here and their questions around the development and definition of 'dryneedling', are shedding light upon this current point of contact between these fields. In this space between paradigms, differences are intensified, and as the two theoretical structures come together it creates a separate field with its own internal logic. In considering 'dryneedling' and other aspects of CM practice that are potentially being acquired by other domains, we may observe the micro-politics of the space, and already perhaps see traces of the Western infiltration into the conceptual space of CM. This process of colonisation puts traditional structures at risk and attempts to put new structures in place. The result of this colonisation may be a decline of CM as a separately standing discipline in its own right. Or it may lead to the redefining of CM, and the other fields of practice it is interacting with, so that the fields involved may move forward and continue to construct and define themselves, internally and in relation to the professions around them.

This re-conceptualisation may be argued to be occurring already. One of the areas of discussion to come out of this research has been CM practitioner and key stakeholders perceptions of the relationship between CM and WM, both conceptually and practically. Participants can be seen here to be heavily involved in the negotiation and communication between these two fields. Differences of great significance to individuals were proffered, such as the emphasis on the individual patients experience in CM, and the fundamental ideas of holism and prevention that are already theoretically inbuilt into the practice CM. And yet at the same time similarities were also discovered, for example in the education and professional features of CM practitioners. This can lead us to reconsider the relationship between CM and WM. For in the CM participants perspectives captured here, we can see the practice of a culturally incongruous system, CM within the surrounds of WM, in a largely harmonious way. This suggests that the active enactment of the longstanding and noteworthy features of CM, in particular the allowance for equally valid, multiple states of existence to co-exist, is not only possible but desired in our Australian healthcare culture. That practitioners and their patients are able here to move conceptually and practically between multiple modes of understanding of the body and the health experience, that is, CM and the dominant WM, may give inspiration to those who consider that there can only be one valid way to look at the body and its modes of healing. Indeed, we can now see aspects of each system within the other.

7.4 Concluding remarks

Perhaps the challenge with the conceptual issues in question here is that ultimately each argument ends up relying on an appeal to authority. Structures of power are inherently involved with authority, and ideally these are mutually agreed upon by all participants in order to make decisions, enforce rules, distribute resources, or direct or control people and/or things. However, power may be used inappropriately and this is where concerns about risk and safety, ethics and emotion, emerge. In this work, we can see the appeal to authority as the resting premise in many ways. In the conceptualisation of CM proffered here, epistemological value is placed on experience, in the form of texts that have stood the test of time, practitioners who have earned their respect and authority through their clinical experience, and one's self-authority as a practitioner and as a patient. It is important to note also that it was found in this research that CM practitioners are not anti-EBM; on the contrary, they support the application of the Western scientific method in research on CM and indeed, often use findings from research in their CM practices when making clinical decisions and communicating with patients, albeit combined with other sources of knowledge. In examining WM and its EBM it has been argued that despite its alignment with scientific values, the implementation of medicine in many ways still comes down to the practitioner-patient interaction, and the influence and authority of the practitioner. In exploring the nature of evidence used by professions, such as WM, as an argument for dominant professional status, we have seen that there is no claim to truth that is so far ultimately outside the realms of human and social construction. In considering the nature of a profession, it has been observed that the authority given is based on a public contract, and involves external regulation and standards within the profession itself.

This appeal to authority is in contrast to the ideals built into the scientific method, where humans are reduced to observation and phenomenon are categorised to be considered objectively. But as we have discovered, there is always a human interpreter, an intervener, an observer. In order for the knowledge from this process to be accepted by another person or group, an appeal to an authority in the form of a mutually agreed system of knowledge, experience, or position is required. As we have found, these are socially derived. Therein lies the difficulty with any appeal to truth, and therefore paradigmatic and professional status. A system of medicine such as CM, which has inbuilt into its conceptual and practical structures the validity of the social, and a recognition of the relational nature of life, may therefore more adequately reflect this idea, at this time.

In CM, authority is gained through extensive and on-going education, critical reflection and experience, and clinical results. This is similar to WM. As we have explored, professional authority is not a 'one-time' deal. Ultimately based in trust, the medical endeavour – Western or Chinese – requires a process of ongoing deliberation and demonstration, with both individual patients and with the public at large. Categorical statements about truth supposedly based upon the scientific process do not adequately reflect this reality. As we have seen, they are themselves contextual and changing. Change is inherent in our ideas about disease and healing, and the relationships that surround and enable these. The ability to incorporate change and the recognition of the interconnected nature of all phenomena that as we have seen here are features of both CM and WM, in their practice and as professions, may lead us to reconceptualise both fields.

Chapter 8: Conclusion

This thesis attempted to investigate the conceptual and empirical nature of CM practice in Australia. This was carried out through three main lines of enquiry: firstly, a review of the ideas underlying CM, WM, professions, and the nature of evidence in medicine; secondly, quantitative and qualitative investigations into the nature of CM practice and the views of practitioners and key stakeholders; and finally, a discussion of the findings and potential ideas and implications emerging from these enquiries. As a student of western and eastern philosophy and their comparative enquiry, I was attracted to the 'philosophy in action' I saw in CM. Looking at CM as we have here, the considerations presented in this thesis have shown for the first time that CM is very well aligned with the large amount of literature on professions. And when we examine the nature of knowledge and evidence in CM, and the top-tiered profession of WM, it is clear that both are highly sophisticated sets of practices, which have well-developed conceptual structures with their own internal logic and externally valid rationale. Both have been and are cultural constructions around the perceived social needs of their practitioners and the wider public. The ongoing development and identities of CM and WM are also continually changing in response to a multitude of internal and external factors, such as ideological change, regulatory pressures, competition, political and social forces.

This examination has uncovered some surprising overlaps: in the diversity and plurality of WM and CM conceptual models; the complexity and confundity being realised through research methods and findings in WM and CM; and in particular the insights being compiled regarding the practitioner-patient relationship and participant perspectives, where we have discovered that the experience of practising and participating in medicine involves multiple, interacting, changing factors and systems.

These insights and more are not easily rendered individually bare within a reductive system of understanding such as that which WM and CM have been recently attempting to employ in service towards their ends, namely, science. Rather, from our enquiry we find that instead it is the 'on the ground', 'active in practice' model being employed in CM practitioners and key stakeholders in Australia that may more accurately describe the current, complex nature of medicine. As we have discovered, CM practitioners are enacting multiple discourses and conceptual strategies, and acknowledging a vast number of individual and relational pieces of evidence between and within their patients, themselves and their patients, their practice and

the Australian healthcare setting, and the wider practice of CM and other medical practices, and in particular the dominant WM.

This conceptualisation of CM practice in Australia, and the similarities emerging between the practices of CM and WM, leads us to the potential re-examination of our theoretical models of medicine and healthcare. Of course, it is the conceptual models of enquiry that we currently have that have led us to this insight, which include previously offered and current conceptualisations of CM and WM, and the quantitative and qualitative research methods employed in this study and their underlying methodologies. In line with the CM episteme, acknowledging our conceptual lineage and our current stance within this, means that therefore no model is treated exclusively or rejected. It means that there is historical, present, and potential room for every model to exist in some way. This is an inherently ethical framework to work from.

Despite relatively recent political factors that have led to standardisation and assessment of CM using western research methods, the heterogeneous and phenomenological, internally consistent approach to healing observed in CM practice in Australia can still be seen as valued and active. While being actively embedded in the western setting, CM practice in Australia can nonetheless be seen to contain the living, cumulative, evolving and locally interactive, heritage of CM ideas and approaches to healing. Among other things, this includes the consideration of many different types of evidence, including the patient and practitioner experience, and the recognition of life and healing as involving complex and specific states of interaction and change. From the literature in WM that has been surveyed here, on the development, the diversity of conceptual and clinical models, the nature of evidence and attempts defining and implementing these, it can now be seen that WM may be in the process of developing a similar understanding itself. The CM model may provide us with the opportunity to engage more authentically with the nature of medicine, and life, in general.

Appendices

Appendix 1: Chinese Medicine in Australia – Survey

Appendix 2: Chinese Medicine in Australia – Interview Schedule

Appendix 3: Moore A. Australian Acupuncture and Chinese Medicine Association (AACMA) 2008 mentoring survey summary. Australian Journal Acupuncture & Chinese Medicine, 2011; 6 (2): 19-27.

Appendix 4: Moore, A, Canaway, R, & O'Brien, K. Preparedness for clinical practice in final year Chinese medicine students: an Australian study. Journal of Alternative & Complementary Medicine 2010, 16 (7), 733-743.

Appendix 5: Moore A, & O'Brien, K. Confidence in clinical practice of Chinese medicine graduates: a pilot study. Journal of Alternative & Complementary Medicine 2012; 18 (3): 270-280.

Appendix 6: Komesaroff, P A, Moore, A, & Kerridge, I H. Medicine and science must oppose intolerance and censorship. Medical Journal Australia 2012; 197 (2): 82-83.

Appendix 7: Moore, A. Conceptualisation of external pathogens in Chinese medicine. The European Journal of Oriental Medicine, Vol. 7. No. 4. Autumn 2013: 22-25.

Appendix 1: Chinese medicine in Australia survey

Chinese medicine in Australia – nature of practice and perspectives of practitioners

National registration of Chinese medicine practitioners will commence on July 1, 2012. This represents an important shift in Australian public health policy in relation to Chinese medicine. As such, it is essential to capture baseline descriptors of the practice of Chinese medicine, and to give voice to the attitudes and opinions of Australian practitioners. Your participation in this survey, while completely voluntary, is strongly urged, as the information gathered in this study will inform both practice and policy.

There are 66 survey questions with eight sections that ask about: clinical practice; professional development; evidence in Chinese medicine; professional associations; registration; the future of Chinese medicine in Australia; education; and demographics. This is a chance for you to describe your practice and share your views on the practice and development of Chinese medicine in Australia.

The survey takes about 30 minutes to complete. By choosing to complete the survey your consent to participate is implied. Any information you provide will be completely anonymous. There is a separate section at the end of the survey where you may choose to leave your name and contact details if you would like to participate in a short interview with the researchers.

Approval for the distribution of this survey has been obtained from the Monash University Human Research Ethics Committee. If you have any questions regarding the research please contact Amber Moore on 0410 782 080, or the Monash University Human Research Ethics Committee on (03) 9905 5490.

Section 1: Clinical practice

1. What proportion of your practice is in Chinese medicine?

0%☐(please do not continue) 10%☐ 20%☐ 30%☐ 40%☐ 50%☐ 60%☐ 70%☐ 80%☐ 90%☐ 100%☐

2. How would you describe the nature of your Chinese medicine practice? (more than one may be selected)

Predominantly acupuncture	Predominantly Chinese herbal medicine	A combination of acupuncture and Chinese herbal medicine	Traditional Chinese massage (Tuina, An Mo)	Other (please specify)
☐	☐	☐	☐	☐

3. In how many locations do you practice Chinese medicine? (please select one)

1☐ 2☐ 3☐ 4 or more☐

4. Which of the following describes your regular Chinese Medicine work arrangements? (more than one may be selected)

	Home	Public/ Commercial
Chinese medicine shared practice	☐	☐
Multi-disciplinary/Shared practice with other health care practitioners	☐	☐
Locum for other Chinese medicine practitioners	☐	☐
Sole practice	☐	☐
Other, please specify –	☐	☐

5. Do you do work related to Chinese medicine in any of the following locations? (more than one may be selected)

Hospital	☐	Rehabilitation facility	☐
University	☐	Residential aged care	☐
Educational college/school	☐	Community health centre	☐
Researcher	☐	Sports clinic/ fitness centre	☐
Non-government/non-profit	☐	Other, please specify –	

6. Please record your average total hours worked in Chinese medicine per week

	0-4	5-9	10-14	15-19	19-24	25-29	30-34	35-39	39+
Clinical (in clinic with patients)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Reading (regarding clinical cases)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Administration (business)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Training (i.e. seminars or workshops)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Further study (i.e. certificate or degree courses)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Teaching (in an educational institution)	☐	☐	☐	☐	☐	☐	☐	☐	☐
Research	☐	☐	☐	☐	☐	☐	☐	☐	☐
Buying & organising stock & clinic supplies	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other, please specify -	☐	☐	☐	☐	☐	☐	☐	☐	☐

7. Please indicate how many Chinese medicine patients on average you see in a week

0-10 ☐ 11-20 ☐ 21-30 ☐ 31-40 ☐ 41 or more ☐

8. How long, on average, is your initial consultation from a patient's perspective (excluding time in the waiting room, but including time on the treatment table and waiting for herbs)?

Up to 10 minutes	Between 11 minutes and 20 minutes	Between 21 minutes and 40 minutes	Between 41 minutes and 1 hour	More than 1 hour
☐	☐	☐	☐	☐

9. How long, on average, is your subsequent consultation from a patient's perspective (excluding time in the waiting room, but including time on the treatment table and waiting for herbs)?

Up to 10 minutes	Between 11 minutes and 20 minutes	Between 21 minutes and 40 minutes	Between 41 minutes and 1 hour	More than 1 hour
☐	☐	☐	☐	☐

10. What languages do you use professionally in patient encounters? (please select all that apply)

English	Mandarin	Cantonese	Other	(please specify)
☐	☐	☐	☐	_____

11. What is the average fee you charge for a Chinese medicine consultation in your practice?

Initial consultation ($): _____

Follow-up consultation ($): _____

12. What payment methods do you offer your patients? (please select all that apply)

Cash	Cheque	EFTPOS	Credit cards	Hicaps	Pre-payment discounts for blocks of visits	Invoice with payment terms (i.e. 7-14 days)	Other (please specify)
☐	☐	☐	☐	☐	☐	☐	_____

13. Do you offer a receipt to your patients?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

14. Why did you choose Chinese medicine as a career? (please select all that apply)

Interest in Chinese medicine philosophy	Previous experience with Chinese medicine	Family member or friend who practices Chinese medicine	Health practices such as tai chi, chi gong or martial arts experience	Appealing work patterns including flexible hours	Income	Other (please specify)
☐	☐	☐	☐	☐	☐	_____

15. Please indicate how frequently your clients are referred to you from the following sources:

	Never/almost never referred	Occasional referral	Referral in about half of cases	Frequent referral	Always/almost always referred
Self referred (word of mouth, other patients, advertising)	☐	☐	☐	☐	☐
Another Chinese medicine practitioner	☐	☐	☐	☐	☐
Chiropractor	☐	☐	☐	☐	☐
Osteopath	☐	☐	☐	☐	☐
General Practitioner (GP)	☐	☐	☐	☐	☐
Medical Specialist	☐	☐	☐	☐	☐
Physiotherapist	☐	☐	☐	☐	☐
Naturopath	☐	☐	☐	☐	☐
Western Herbalist	☐	☐	☐	☐	☐
Homeopath	☐	☐	☐	☐	☐
Massage Therapist	☐	☐	☐	☐	☐
Pharmacist	☐	☐	☐	☐	☐
Psychologist	☐	☐	☐	☐	☐
Counsellor	☐	☐	☐	☐	☐
Health Food Store Worker	☐	☐	☐	☐	☐
Nurse	☐	☐	☐	☐	☐
Midwife	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

16. Please indicate how frequently you refer your clients to the following health care practitioners:

	Never/almost never referred	Occasional referral	Referral in about half of cases	Frequent referral	Always/almost always referred
Another Chinese medicine practitioner	☐	☐	☐	☐	☐
Chiropractor	☐	☐	☐	☐	☐
Osteopath	☐	☐	☐	☐	☐
General Practitioner (GP)	☐	☐	☐	☐	☐
Medical Specialist	☐	☐	☐	☐	☐
Physiotherapist	☐	☐	☐	☐	☐
Naturopath	☐	☐	☐	☐	☐
Western Herbalist	☐	☐	☐	☐	☐
Homeopath	☐	☐	☐	☐	☐
Massage Therapist	☐	☐	☐	☐	☐
Psychologist	☐	☐	☐	☐	☐
Counsellor	☐	☐	☐	☐	☐
Nurse	☐	☐	☐	☐	☐
Midwife	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

17. Do you write patient notes for each consultation?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

18. In what form are your records and notes kept? (please select all that apply)

On paper or cards	Computerised records	Combination of computer and paper or cards	Other (please specify)	
☐	☐	☐	☐	_____

19. Please indicate how frequently you use the following Chinese medicine modalities in your practice:

	Never/ almost never used	Occasionally used	Used in about half of the cases	Frequently used	Always/almost always used
Acupuncture (manual needle stimulation with skin penetration)	☐	☐	☐	☐	☐
Laser acupuncture	☐	☐	☐	☐	☐
Electro-acupuncture	☐	☐	☐	☐	☐
Chinese herbal medicine – raw herb decoctions	☐	☐	☐	☐	☐
Chinese herbal medicine – granules, powders	☐	☐	☐	☐	☐
Patent Chinese herbal medicine – pills, tablets, liquids, syrups	☐	☐	☐	☐	☐
Patent Chinese herbal medicine – patches, ointments, balms	☐	☐	☐	☐	☐
Individualised patent herbs (liquids, granules)	☐	☐	☐	☐	☐
Chinese medicine massage (An Mo, Tuina)	☐	☐	☐	☐	☐
Chinese medicine dietary advice	☐	☐	☐	☐	☐
Lifestyle advice	☐	☐	☐	☐	☐
Non-scarring moxibustion	☐	☐	☐	☐	☐
Scarring moxibustion	☐	☐	☐	☐	☐
Cupping	☐	☐	☐	☐	☐
Exercise advice (tai chi, qi gong)	☐	☐	☐	☐	☐
Point injection therapy	☐	☐	☐	☐	☐
Scraping/Gua sha	☐	☐	☐	☐	☐
Dermal hammer/Plum Blossom technique	☐	☐	☐	☐	☐
Embedding needles	☐	☐	☐	☐	☐
Bleeding	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

20. Please indicate how frequently you use the following Non-Chinese medicine modalities in your practice:

	Never/almost never used	Occasionally used	Used in about half of the cases	Frequently used	Always/almost always used
Western herbal medicine	☐	☐	☐	☐	☐
Orthodox western medicine	☐	☐	☐	☐	☐
Ayurvedic medicine	☐	☐	☐	☐	☐
Vitamin/mineral therapy	☐	☐	☐	☐	☐
Homeopathy	☐	☐	☐	☐	☐
Physiotherapy	☐	☐	☐	☐	☐
Chiropractic	☐	☐	☐	☐	☐
Osteopathy	☐	☐	☐	☐	☐
Nursing	☐	☐	☐	☐	☐
Midwifery	☐	☐	☐	☐	☐
Bodywork (massage, reflexology)	☐	☐	☐	☐	☐
Shiatsu	☐	☐	☐	☐	☐
Counselling	☐	☐	☐	☐	☐
Nutritional advice	☐	☐	☐	☐	☐
Other (please specify) _____	☐	☐	☐	☐	☐

21. If you use acupuncture in your practice, what style of acupuncture do you practice? (please select all that apply)

	Never/almost never used	Occasionally used	Used in about half of the cases	Frequently used	Always/almost always used
Chinese acupuncture	☐	☐	☐	☐	☐
Ear acupuncture	☐	☐	☐	☐	☐
Five element acupuncture	☐	☐	☐	☐	☐
Eight principles acupuncture	☐	☐	☐	☐	☐
Korean hand acupuncture	☐	☐	☐	☐	☐
Japanese Toyahari meridian therapy	☐	☐	☐	☐	☐
Other Japanese acupuncture	☐	☐	☐	☐	☐
Medical acupuncture	☐	☐	☐	☐	☐
Other (please specify) _____	☐	☐	☐	☐	☐

22. If you use Chinese herbal medicine in your practice, do you provide to patients the full list of herbs and dosages for all formulations prescribed?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

23. How frequently do your patients experience reportable adverse events (i.e. a negative response to herbs or acupuncture) in your practice?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

24. How frequently do you report adverse events (i.e. a negative response to herbs or acupuncture) to the Therapeutic Goods Administration?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

25. How frequently do you utilise Western diagnostic results in your practice? (blood test, X-rays, etc)

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

26. When you formulate your Chinese medicine diagnosis do you also name a biomedical condition?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

27. Do you rely predominantly on a Chinese medicine philosophy and theoretical framework for making your diagnosis and guiding your acupuncture or Chinese herbal medicine treatments?

Never/almost never	Occasionally	In about half of the cases	Frequently	Always/almost always
☐	☐	☐	☐	☐

28. Do you have any other comments regarding your clinical practice of Chinese medicine? (optional)

Section 2: Professional development

29. Have you undertaken any continuing professional development in Chinese medicine in the last 12 months?

No	Yes	Please describe:
☐	☐	

30. Do you consider yourself as being in a mentor/mentee relationship? (Please select all that apply)

With a Chinese medicine practitioner:		With someone else:	
As a mentor (you are the more experienced practitioner)	As a mentee (you are the less experienced practitioner)	As a mentor (you are the more experienced person)	As a mentee (you are the less experienced person)
☐	☐	☐	☐
Please describe:	Please describe:	Please describe:	Please describe:

31. Would you like professional support to be provided to new graduates in the transition to clinical practice?

No	Yes	If yes, what form should it take:
☐	☐	☐ Mentoring ☐ Internship ☐ Other (please describe)

32. How often do you discuss the following with other Chinese medicine practitioners (please select all that apply)

	Never/almost never	Occasionally	About half of the time	Frequently	Always/almost always
Difficult cases	☐	☐	☐	☐	☐
Patient referrals	☐	☐	☐	☐	☐
Chinese medical philosophy and theory	☐	☐	☐	☐	☐
Chinese medicine practice	☐	☐	☐	☐	☐
Practice management	☐	☐	☐	☐	☐
Business development	☐	☐	☐	☐	☐
Marketing & advertising	☐	☐	☐	☐	☐
Professional development	☐	☐	☐	☐	☐
Further qualifications	☐	☐	☐	☐	☐
Registration requirements	☐	☐	☐	☐	☐
Professional association requirements	☐	☐	☐	☐	☐
Non-Chinese medicine health care	☐	☐	☐	☐	☐
Other (please describe) _____	☐	☐	☐	☐	☐

33. How often do you discuss the following with non-Chinese medicine health professionals (please select all that apply)

	Never/almost never	Occasionally	About half of the time	Frequently	Always/almost always
Difficult cases	☐	☐	☐	☐	☐
Patient referrals	☐	☐	☐	☐	☐
Chinese medical philosophy and theory	☐	☐	☐	☐	☐
Chinese medicine practice	☐	☐	☐	☐	☐
Practice management	☐	☐	☐	☐	☐
Business development	☐	☐	☐	☐	☐
Marketing & advertising	☐	☐	☐	☐	☐
Professional development	☐	☐	☐	☐	☐
Further qualifications	☐	☐	☐	☐	☐
Registration requirements	☐	☐	☐	☐	☐
Professional association requirements	☐	☐	☐	☐	☐
Non-Chinese medicine health care	☐	☐	☐	☐	☐
Other (please describe) _____	☐	☐	☐	☐	☐

34. In your opinion, who should provide continuing professional development opportunities (CPD)? (please rank in order of importance to you – from 1 is most important to 4 is least important)

Provided by:	National Registration Body	Professional associations	Educational Institutions	Private companies
i.e. CPD Program	*3*	*2*	*4*	*1*
Seminars				
Conferences				
Professional supervision				
Post-graduate study				
Case study groups				
Mentoring program				
Self-directed study				
Study in China				
Other (please explain)				

35. Do you have any other comments regarding continuing professional development in Chinese medicine? (optional)

Section 3: Evidence in Chinese medicine

36. How important are the following kinds of information to you in your practice of Chinese Medicine?

	Very unimportant	Unimportant	Neither important nor unimportant	Important	Very Important
Chinese medicine classic text (e.g. Huang Di Nei Jing, Shang Han Lun)	☐	☐	☐	☐	☐
Modern Chinese medicine texts	☐	☐	☐	☐	☐
Biomedical texts	☐	☐	☐	☐	☐
Systematic reviews of Chinese medicine	☐	☐	☐	☐	☐
Systematic reviews of Biomedicine	☐	☐	☐	☐	☐
Chinese medical journal articles	☐	☐	☐	☐	☐
Biomedical journal articles	☐	☐	☐	☐	☐
Chinese medical case studies	☐	☐	☐	☐	☐
Biomedical case studies	☐	☐	☐	☐	☐
Animal and physiological research	☐	☐	☐	☐	☐
Explanation by experienced practitioners	☐	☐	☐	☐	☐
Your own experience	☐	☐	☐	☐	☐
Your patient's explanation	☐	☐	☐	☐	☐
Professional Association newsletters	☐	☐	☐	☐	☐
Chinese medicine E-newsletters	☐	☐	☐	☐	☐
Web search engines (e.g. Google)	☐	☐	☐	☐	☐
Chinese medicine websites	☐	☐	☐	☐	☐
Other medical websites	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

37. Do you have any other comments regarding evidence in Chinese medicine? (optional)

Section 4: Professional Associations

38. Please indicate, in order of importance to yourself, the professional associations of which you are a member:

1.
2.
3.

☐ None

39. Do you agree that the following are the roles of professional associations representing Chinese medicine practitioners? (please select all that apply)

	Yes	No	Unsure
Represent the profession (with media, government, industry, other professions, the public)	☐	☐	☐
Promote Chinese medicine (with media, government, industry, other professions, the public)	☐	☐	☐
Educate the Australian public about Chinese medicine	☐	☐	☐
Provide continuing education to members	☐	☐	☐
Provide professional support to members	☐	☐	☐
Promote professional behaviours and standards	☐	☐	☐
Promote the status of the profession	☐	☐	☐
Provide standards of practice	☐	☐	☐
Provide standards of education	☐	☐	☐
Support Chinese medicine research and infrastructure	☐	☐	☐
Other (please describe)	☐	☐	☐

40. Are there any areas in which you like would like more support from your professional association? (please identify)

41. Do you have any other comments regarding Chinese medicine professional associations in Australia? (optional)

Section 5: Regulation

42. Are you registered with the Chinese Medicine Registration Board of Victoria?

☐ Yes → go to question 43. ☐ No → go to question 45.

43. In which division/s are you registered with the Chinese Medicine Registration Board of Victoria? (tick all that apply)

Acupuncturist	Chinese herbal medicine practitioner	Chinese herbal dispenser
☐	☐	☐

44. If you are registered in Victoria, what do you perceive have been the benefits or costs of statutory regulation of Chinese medicine in Victoria since 2002?

	Negative Change	Neither Negative nor Positive	Positive Change	Don't know
Professional status	☐	☐	☐	☐
Standards of practice	☐	☐	☐	☐
Standards of education	☐	☐	☐	☐
Access to research and infrastructure	☐	☐	☐	☐
Practitioner income	☐	☐	☐	☐
Chinese Medicine Registration Board investigations	☐	☐	☐	☐
Litigation (legal cases brought against Chinese medicine practitioners)	☐	☐	☐	☐
Representation of members in legal cases	☐	☐	☐	☐
Quality of herbal medicines	☐	☐	☐	☐
Access to variety of herbal medicines including potentially toxic herbs (Schedule 1 herbs)	☐	☐	☐	☐
Definition of occupational boundaries	☐	☐	☐	☐
English language & effective communication requirements	☐	☐	☐	☐
Policies, guidelines and codes on practice and conduct	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐

45. What do you perceive as the likely benefits or costs of the <u>future</u> national government regulation of Chinese medicine from 2012?

	Negative Change	Neither Negative nor Positive	Positive Change	Don't know
Professional status	☐	☐	☐	☐
Standards of practice	☐	☐	☐	☐
Standards of education	☐	☐	☐	☐
Access to research and infrastructure	☐	☐	☐	☐
Practitioner income	☐	☐	☐	☐
Standardised complaints arrangements	☐	☐	☐	☐
Litigation (legal cases brought against Chinese medicine practitioners)	☐	☐	☐	☐
Accreditation of education courses	☐	☐	☐	☐
Access to variety of herbal medicines including potentially toxic herbs (Schedule 1 herbs)	☐	☐	☐	☐
Policies, guidelines and codes on practice and conduct	☐	☐	☐	☐
investigations & prosecution of unregistered persons practising Chinese medicine	☐	☐	☐	☐
Mandatory professional indemnity insurance	☐	☐	☐	☐
First time applicant criminal history & identity checks	☐	☐	☐	☐
Enforcement of Continuing Professional Development	☐	☐	☐	☐
English language requirement	☐	☐	☐	☐
Mandatory reporting of registered practitioners	☐	☐	☐	☐
Student registration	☐	☐	☐	☐
Information sharing with other government agencies & international regulators	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐

46. Do you have any other comments regarding the regulation of Chinese medicine in Australia? (optional)

Section 6: Future of Chinese medicine in Australia

47. What do you perceive are the main features of Chinese medicine in Australia that differentiate it from other forms of health care in Australia?

1.

2.

3.

4.

48. What do you perceive are the main features of Chinese medicine in Australia that differentiate it from Chinese medicine in other countries, including China?

1.

2.

3.

4.

49. How important to you is Chinese medicine classical theory and practice (e.g. Huang di Nei Jing, Shang Han Lun):

	Very unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important
In your current practice of Chinese medicine?	☐	☐	☐	☐	☐
For the development of Chinese medicine?	☐	☐	☐	☐	☐

Any comments:

50. How important to you are findings from evidence based medicine research in Chinese medicine:

	Very unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important
In your current practice of Chinese medicine?	☐	☐	☐	☐	☐
For the development of Chinese medicine?	☐	☐	☐	☐	☐

Any comments:

51. What is most important to you for the future of <u>your</u> practice of Chinese medicine in Australia?

☐ Treatment effectiveness

☐ Client satisfaction

☐ Financial viability

☐ Other (please describe)

☐ Professional development

☐ Scientific evidence

☐ Integration into mainstream healthcare

52. In your opinion how important are the following issues for Chinese medicine in Australia? (select all that apply)

	Very unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important	Don't know
Professional status	☐	☐	☐	☐	☐	☐
Standards of practice	☐	☐	☐	☐	☐	☐
Standards of education	☐	☐	☐	☐	☐	☐
Access to research and infrastructure	☐	☐	☐	☐	☐	☐
Practitioner income	☐	☐	☐	☐	☐	☐
Litigation (legal cases brought against Chinese medicine practitioners)	☐	☐	☐	☐	☐	☐
Post-graduate education	☐	☐	☐	☐	☐	☐
Patient costs	☐	☐	☐	☐	☐	☐
Quality of herbal medicines	☐	☐	☐	☐	☐	☐
Access to variety of herbal medicines	☐	☐	☐	☐	☐	☐
Definition of occupational boundaries	☐	☐	☐	☐	☐	☐
Continuing Professional Development requirements	☐	☐	☐	☐	☐	☐
Integration into national health care registration	☐	☐	☐	☐	☐	☐
Inclusion of non-medical acupuncture in Medicare	☐	☐	☐	☐	☐	☐
Evidence Based research methods	☐	☐	☐	☐	☐	☐
Retention of new graduates	☐	☐	☐	☐	☐	☐
Professional culture and values	☐	☐	☐	☐	☐	☐
Promotion of the profession	☐	☐	☐	☐	☐	☐
Education of the public about Chinese medicine	☐	☐	☐	☐	☐	☐
Accessibility of Chinese medicine to the public	☐	☐	☐	☐	☐	☐
Translation of Chinese terminology	☐	☐	☐	☐	☐	☐
Preservation of Chinese medicine philosophy and theoretical framework	☐	☐	☐	☐	☐	☐
Other (please describe) _____	☐	☐	☐	☐	☐	☐

53. Do you have any other comments regarding the future of Chinese medicine in Australia? (optional)

Section 7: Education

54. How many years of clinical experience (both full-time and part-time) do you have in Chinese medicine?

<1yr	1-2	3-4	5-6	7-10	11-15	16-20	21-25	26-30	31-35	>35
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

55. Please indicate how many of these years of Chinese medicine clinical experience (both full-time and part-time) have been gained overseas.

Place in which Chinese medicine clinical experience was gained	Number of years of clinical experience										
	<1yr	1-2	3-4	5-6	7-10	11-15	16-20	21-25	26-30	31-35	>35
China	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Elsewhere in Asia. S.E. Asia (e.g Vietnam, Cambodia, Malaysia, Singapore)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Western Europe	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
USA/Canada	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Central/South America	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Africa/Middle East	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Eastern Europe/former USSR	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

56. How many years of clinical experience (both full-time and part-time) do you have in health practice modalities OTHER THAN Chinese medicine?

Modality	Years of experience			
	0-5	6-10	11-15	>15
Chiropractor	☐	☐	☐	☐
Osteopath	☐	☐	☐	☐
General Practitioner (GP)	☐	☐	☐	☐
Medical Specialist	☐	☐	☐	☐
Physiotherapist	☐	☐	☐	☐
Naturopath	☐	☐	☐	☐
Western Herbalist	☐	☐	☐	☐
Homeopath	☐	☐	☐	☐
Massage Therapist	☐	☐	☐	☐
Psychologist	☐	☐	☐	☐
Counsellor	☐	☐	☐	☐
Pharmacist	☐	☐	☐	☐
Optometry	☐	☐	☐	☐
Nurse	☐	☐	☐	☐
Midwife	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐

57. Please provide the following information for qualifications you have in Chinese medicine (including acupuncture, Chinese herbal medicine, or any other modality of Chinese medicine)

Qualifications (full title)	Abbreviated Title	Knowledge obtained	Conferring institution or Body (full name)	City in which qualification obtained	Length of course	Year completed
e.g. Bachelor of Traditional Chinese medicine	*B.TCHINESE MEDICINE*	*Acupuncture and Chinese herbal medicine*	*Beijing University of TCHINESE MEDICINE*	*Beijing*	*5years*	*1978*

58. If your Chinese medicine training was done through an apprentice style process, please indicate the number of years training and the style of the apprenticeship:

Details of apprenticeship (I.e. location and knowledge obtained):
Years:

59. Please provide the following information for qualifications you have other than in Chinese medicine

Qualifications (full title)	Abbreviated Title	Conferring institution or Body (full name)	City in which qualification obtained	Length of course	Year completed
e.g. Bachelor of Medicine	*B.Med*	*Newcastle University*	*Newcastle*	*5 years*	*1992*

60. Do you have any other comments regarding education in Chinese medicine in Australia? (optional)

Section 8: Demographics

61. What is your sex?

☐ Male ☐ Female

62. Please write your year of birth_____

63. Please indicate your place of birth:

☐	Australia or New Zealand		
☐	China	☐	Central/South America
☐	Elsewhere in Asia. S.E. Asia (e.g Vietnam, Cambodia, Malaysia, Singapore)	☐	Africa/Middle East
☐	Western Europe	☐	Eastern Europe/former USSR
☐	USA/Canada	☐	Other _____

64. Is English your first language?

☐ Yes ☐ No – **What is your first language?** _____

65. What is the postcode of your usual residence? _____

66. What is the postcode of your primary work location? _____

Please check that you have answered all questions. Your participation in this project is very much appreciated. Please add any further comments you wish in the space below.

If you would like to participate in this research further by sharing your views in an interview, please indicate by providing your name and phone number or email address below (Optional)

Name:

Phone number or email address:

As a thank you for completing the survey, if you would like to go in the draw to win a $50 voucher from Chinabooks please enter your email address here: _____

Appendix 2: Chinese Medicine in Australia: Interview Schedule

CM practitioner and key stakeholder interview question schedule

Consent form completed. Thank you for agreeing to participate in this interview. If you have any questions after reading the participant explanatory sheet or during the interview please don't hesitate to ask me. If you would like to discontinue this interview at any time you are welcome to.

Explanation of research: This research is being carried out as part of a PhD study that is looking at Chinese medicine as a health care profession in Australia. As part of that study, we are asking for the perspectives of current Chinese medicine practitioners and key stakeholders in Australia, on their understanding of the nature of practice and issues of significance in Chinese medicine in Australia at this time. Do you have any questions about this?

Questions: recorder on

Check date, name, age, birthplace, first language

Intro discussion

Check OK to be taped

Confidential – no people's names will be identified, will be deleted from transcript.

Can you talk about how your interest in CM came about?

Experience/person/illness/education/previous career?

What aspects of CM appealed to you when choosing CM as a career?

While studying?

Are there any specific things you particularly enjoyed learning about in CM?

<u>Clinical practice:</u>

Can you tell us a bit more about your practice

Types of patients/treatments/clinical focus/how describe your work?

What treatment approaches do you use?

Techniques/theories/methods/herbs?

Are there people who practice in different ways in CM?

How do you characterise yourself in relation to other practitioners?

How do patients find you?

Referrals/advertising?

What are the benefits of CM that you like seeing?

<u>Evidence:</u>

What are the main sources of information for you?

How important are findings from evidence-based medicine research in your practice?

Professional development:

What kinds of professional development do you do?

Do you have a sense of your field as continuing professional development?

Are there people you discuss things with?

Questions/ideas/difficult cases/diagnoses/adverse events?

Do you see other ways in which practitioners could connect professionally?

Do you have anyone from your training that you appeal to in order to deepen your knowledge?

Teacher/mentor?

Are there difficult experiences that you sometimes find?

Uncertain diagnosis/psychological or emotional responses to clients?

What is your experience of the business management side of practice?

Do you know of anywhere to go to learn small business skills?

What advice would you give to a new practitioner?

How to practice/things to do?

Professional associations:

What do you see as the role of your professional association?

Promotion/education/support/professional development?

Are there certain kinds of support for practitioners you'd like to see more of?

Ways of communicating/sharing information?

Regulation:

Can you elaborate on your relationship to the CMRB/regulatory body?

What do you see as the role of the regulatory body?

What are your thoughts on the regulatory codes of practice and clinical guidelines?

How do you familiarise yourself with them/practice them?

How effective do you feel they will be in controlling practice?

Would you become aware of people not following the regulations?

What do you do/ how respond?

Education:

How did you obtain your education in CM?

Do you have any thoughts on the education CM in Australia?

Standards/scheduled herbs/post-graduate/specialities

Development of CM:

Broadly speaking, are there areas in which you would like to see change?

Your individual practice to level of regulation

From your point of view are there any particular aspects of Chinese medicine that you see as contributing in a unique way to healthcare in Australia?

In your position, do you feel there are any key issues for Chinese medicine at this time?

Your practice/CM as a whole/ in Australia/the world/Future

Can you describe your picture or vision for Chinese medicine in the future in Australia?

Your practice/CM as a whole/Future

Thank you! A copy of the interview transcript will be sent to you for your approval.

[end]

Appendix 3: AACMA 2008 mentoring survey summary

Australian Acupuncture and Chinese Medicine Association Ltd (AACMA) 2008 Mentoring Survey Summary

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ABSTRACT

Background: There has been long-standing discussion by Chinese medicine practitioners in Australia concerning the ways in which they could best be supported in their endeavours. Mentoring by experienced practitioners is considered a possible format for this to occur. Aims: To gain an understanding of AACMA members' perceptions and requirements regarding mentoring. Design: A written survey composed of 15 questions with quantitative and qualitative components. Subjects & setting: The survey was distributed to all AACMA members in Australia in 2008. Interventions & outcome measures: Qualitative survey data was analysed using thematic analysis. Results: From 129 responses, a number of themes emerged regarding members' perceptions and requirements for mentoring. Key themes include: a variety of understandings of what mentoring is; the purpose of mentoring is to develop confidence and clinical experience; the need for guidelines and support for mentors; restrictions on who can be a mentor; that anyone can be a mentee; participation can be optional; any program should be flexible and suit the individuals involved; and that a mentoring program is seen as valuable and good for the profession. Conclusions: The study provides an evidentiary basis for the establishment of a pilot mentoring program for practitioners and, auspiced by a professional association such as AACMA, may indeed be a timely and valuable endeavour on behalf of the profession.

KEYWORDS professional development, professional support, mentoring, education, clinical practice, qualitative research.

Introduction

One of the main outcomes from recent research into Chinese medicine degree students and graduates in Australia has been that there is a perceived need for mentoring during the transition period from being a student into active practice in the profession.[1] This transitional period for new health care professionals is acknowledged as stressful, as they learn to apply the skills they have learned in the 'real world' clinical setting.[2–5] One strategy proposed to facilitate the entry and continuing practice of Chinese medicine practitioners is the implementation of a mentoring program. Various forms of mentoring have been implemented in a number of related professions, including medicine, nursing, and occupational therapy.[6–8]

Mentoring has been given a number of definitions in a variety of settings and has emerged as a concept with increasing proliferation in recent years. It may be understood as a learning partnership that is specific to the individuals involved and, as a unique relationship, it may be seen as a process which is characterised by the nature of the support provided to the mentee

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by the mentor.[9] Mentoring may be distinguished from other similar types of support such as role-modelling and supervision in that it may be initiated formally or informally, occur in a number of different contexts, and varies widely in the structure of the relationship and types of interactions between the individuals involved. The Australian Acupuncture and Chinese Medical Association Ltd (AACMA) mentoring survey was conducted in order to gain insight into members' perceptions and requirements regarding professional development and support of new members through mentoring. Findings from this survey will inform the Chinese medicine (CM) profession in Australia as to the perspectives of practitioners regarding mentoring.

Method

The AACMA mentoring survey was distributed in October 2008. The target population was current acupuncture and Chinese medicine practitioners in Australia and the survey was offered in paper format to all AACMA members as part of their annual information update. Participants were given until 12 December 2008 to complete and return the survey by mail. As consultant to the AACMA mentoring committee in 2009, I was asked to analyse the mentoring survey data, post-hoc.

The survey was composed of 14 questions of varying statistical design that offered both quantitative and qualitative response options. Statistical analysis of the quantitative components was carried out using descriptive counts, and the qualitative responses to questions were analysed using thematic analysis. The qualitative data from the open-ended question responses, which sought participants' attitudes and opinions, provided a rich field of data for inquiry, and the focus for this article.

A copy of the survey can be found in Appendix 1.

Results

Out of 1633 AACMA members in 2008 that were sent the survey, there were 129 responses, giving a total response rate of 7.9%.

Key themes emerging from the survey data are summarised in Table 1.

Results from question one, 'which of the following best describes your understanding of mentoring?' indicate that most participants understand mentoring in a variety of ways. The most popular responses suggest that mentoring is understood as formal (n = 45), semi-formal (n = 50), and informal (n = 35). A number of respondents said they felt mentoring included all or combinations of the possible responses – formal, informal, semi-formal, group, co-mentoring, and e-mentoring. Results from themes in question two responses indicate that participants view the purposes of a mentoring program to develop confidence, personal growth, clinical practice and experience. Responses included one participant's desire:

> *'To develop as a practitioner – to have the confidence to find one's own way to be with clients, to clarify one's own healing philosophy and then how to relate new knowledge and skills to this base.'*

And from another, *'It's also about setting and maintaining a high standard of clinical practice and professionalism in the service through the guidance of more experienced practitioners.'*

When asked in question three which activities could be considered part of mentoring, responses were largely spread evenly over all possible responses, although observation (n = 46) and experience gained from assisting (n = 40) or working in a senior practitioner's clinic (n = 43), and regular one-on-one (n = 51) or group contact (n = 22) in order to discuss practice and/or professional matters, received overall higher level of responses than other possible activities.

In question four, responses were fairly evenly divided between whether or not mentors should receive formal training (yes: n = 69, no: n = 54). Key themes arising out of the comments from this question include providing training in teaching skills and clarifying the professional expectations to mentors. The provision of guidelines for mentoring, including a code of ethics and standards of practice, was also seen as important by participants, as well as clear expectations about mentor and mentee roles. The level of experience or qualifications of the mentoring practitioner, as well as their length of time in practice and level of communication skills, also emerged as key issues.

Participants also reported a desire for a mentoring program to be a specified length of time, preferably shorter rather than longer, and that its implementation allow for individual adjustment and flexibility, according to the needs of the mentee and mentor. For the mentor, the requirements of a desire to mentor and the time to commit to it were expressed as important by survey respondents. It can also be seen from the data that continual access to support for the mentor is an issue to consider in the design and implementation of any program.

When asked if there should be any restriction on who can be a mentor in question five, 95 responded 'yes' while 26 responded 'no'. Popular themes coming out of this question include the number of years of practice and the experience and qualifications of the mentor.

TABLE 1 Questions and key themes

Question	Key Themes
1. Understanding of mentoring	Variety of understandings Number of options available
2. Purpose of mentoring	Developing confidence Personal growth Clinical practice Clinical experience All of these options
4. Formal training for mentors	Provide teacher training Professional expectations Need guidelines/code of ethics/standards of practice provided Define roles and issues Provision of support for mentors needed Short in length Room for individuals Mentors must have desire & time
5. Restrictions on who can mentor	Consider years of practice Experience and qualifications important Professionalism/ set of practice standards Reputation/respect/character/ lack of ego Relevance of experience Time and commitment Individual room for mentor and mentee relationship to develop
7. Restrictions on who can be a mentee	Must be registered/qualified Optional – willing to learn/serious/ they want it Students, new graduates and existing professionals who want support – anyone Need previous understanding of professional & ethical behaviour
12. Length of a (part-time) mentoring program	Needs to be flexible To suit the individual Short
15. Any comments that would assist with developing a mentoring program	Must be flexible and supportive Good for profession Different for experienced practitioners (vs. new graduates) Have a contract between participants Look to other professions Ensure time and simple format It's valuable and adds value Participation up to individuals/voluntary

Examples of responses include:

'Mentoring should be restricted to practitioners who have had some training, or past experience as clinical supervisors.'

'[The] mentor would ideally be reputable and experienced practitioners with the appropriate skills for guiding and instructing newer practitioners.'

The issues of professionalism, practice standards, reputation, respect, character, lack of ego and relevance of experience of the mentor were also raised. Again, having the time and commitment, as well as room for individuals within the mentoring arrangement, were communicated by participants of the survey. Overall, it was largely agreed that mentors should be required to have from five (n = 56) to 10 (n = 44) years in practice.

Almost double the respondents felt that there should be no restriction on who can be a mentee (n = 79), when compared to there being any restriction (n = 40). Many participants reported feeling that mentees should be registered or qualified, and that mentees should have a prior understanding of professional and ethical behaviours. Survey respondents also felt that participation in a mentoring program should be optional for mentees and

open to those who are willing to learn and want to participate. An emergent theme from this question was that mentees may be anyone – final year students (n = 41), new graduates (n = 53) or existing professionals who want support (n = 54). As one respondent said, *'I've been practising for over 10 years and there are still days when I think I don't know how best to handle some cases (e.g. unusual presentations or complex presentations).'*

Results for question nine strongly suggest that mentoring as an AACMA-provided program is desired by respondents – who would either consider participating as a mentor (n = 50) or as a mentee (n = 61). This is considerably more than the respondents who were either not interested at this time (n = 37), or not at all interested (n = 3). Allowing for the limited options available for response, more practitioners considering participating as a mentor expressed interest in 'a semi-formal seminar-based training program' (n = 66) to 'a formal mentor training course leading to an award' (n = 38). More respondents considering becoming a mentor felt that, 'a statement of attendance for CPE points is sufficient' than any other preference option available. The use of CPE points as recognition for mentoring was a recurring theme.

When asked, 'What do you think the length of a (part-time) mentoring training program should be?', the most popular responses were ad-hoc seminar-based training (n = 44), or three months (n = 29). Themes arising from the qualitative response section to this question were: flexibility in the program; allowance in the program to suit the individuals involved; and a short program length. These suggestions most likely arose from the 'other (please specify)' option within the question.

It was clear from respondents that they do not feel any charges or fees for mentoring should be considered (n = 76). This is compared to the other available responses of: charges or fees 'paid to the mentor by the mentee(s)' (n = 32); or charges or fees 'paid by the practitioner for mentoring training' (n = 15). A number of qualitative responses were given to this question, however no dominant themes arose.

Themes that did emerge from the final survey question, in which participants were invited to make any further comments that they thought might assist in the development of a mentoring, were many. In particular, the desire for a program that was flexible towards and supportive of participants, including rural practitioners, arose again. One respondent felt it was important for *'some flexibility in the structure of the program so that the mentor/mentee relationship can grow and develop.'*

Another stated, *'I think it's fantastic that AACMA is developing these programmes. Flexible consideration to people with commitments (family/work/sickness) should also be considered.'*

No clear preference regarding a mentoring program format arose; however, suggestions from participants did include: looking to other professions for program structures; that any program consider the different needs of new graduates and existing practitioners; and the use of a contract or agreement between mentors and mentees involved. Other suggestions included the importance of considering the time involved, the need to keep the program simple, and that participation in a mentoring program be voluntary and up to the individuals involved.

Mentoring as a response by the profession to issues arising from the isolation of practice was mentioned by a number of respondents. Responses included the following statements:

'I think a mentoring program is definitely in need and highly overdue. I am very excited that there may be one available to us practitioners in the near future. Hopefully sooner rather than later.'

'I had a mentoring program throughout my six years of study. I found practitioners that encouraged students to observe and assist, and I believe in having this experience I am a much more confident practitioner. It would be great if students had a service in which they could find practitioners to become mentors. We all need to support each other for our industry to shine and I believe this is an imperative way to do this.'

'I feel that some form of mentoring is essential to support new graduates especially, and an assisted ongoing program to match less experienced with more experienced practitioners in a mentor/supervisor role would be a huge boost to the profession. Such a scheme would, in my opinion, lead to more successful practitioners and a more cohesive TCM community.'

'I feel that mentoring is essential to our profession. There is a very high attrition rate in the college and first few years of practice. Students need the inspiration of experiencing successful acupuncture clinics in the community.'

These above examples highlight that, for respondents to this survey, overall it was considered that informal mentoring experiences were valuable and that a mentoring program would be beneficial to the profession.

Discussion

This survey highlights the desire for a mentoring program for Chinese medicine practitioners in Australia. Although the issue of mentoring has been discussed previously[1,10,11,12], to the author's knowledge this is the first time an Australian CM professional association has carried out a survey of this size specifically on CM practitioner attitudes towards mentoring.

Because of the focus on the views of AACMA members in Australia and the relatively low response rate, the results of this survey have limited generalisability to the rest of the CM practitioner population. The question structures and lack of demographic data mean that information, such as differences between responses from practitioners based on years of practice, cannot be derived. Likewise, limitations such as self-selection and self-reporting biases on behalf of participants must also be considered. However, as a beginning guide to determining practitioner views and experiences of mentoring, particularly from the qualitative perspective, this survey is a valuable contribution to the discussion.

Results from this study emphasise a need for flexibility within our understanding and implementation of mentoring. With many different possible understandings of mentoring, it will be important that any program allow for the variety of practitioner styles and practice settings that exist in a profession as diverse as CM in Australia. This is further emphasised by the recognition that CM practice in Australia is largely carried out in private practice, and not the hospital or public health setting found in other countries such as China and Hong Kong. As a primarily self-employed profession in Australia, mentoring has been argued to be particularly suited to CM.[11] Of particular relevance to the CM profession in Australia, is the need for business establishment and clinic management skills, including marketing and communication skills.[5] A more formal mentoring program may be a way to observe and develop these skills in practice.

While most CM educational providers in Australia allow for students to have external clinic experiences as part of their undergraduate training, including a chance to study in China, results from this study suggest that more opportunities to experience local clinical situations and support from more experienced practitioners is desired. This is in line with other fields of healthcare that are now acknowledging the importance of role models and clinical experience in the formation of practitioners.[13,14] Results from this study support the 'intuited/previously anecdotal' use of and overall appreciation for informal mentoring arrangements by both the mentor and mentees involved. Looking further at formal mentoring programs developed by other professional associations, such as Mentorlink by Occupational Therapists Australia[15], may provide AACMA with more support towards developing their own mentoring program.

An encouraging result from this study is the finding that there are a number of experienced practitioners willing to participate in a mentoring program as mentors. The participation of more experienced practitioners in the development of newer practitioners practice may be reflective of the increased awareness of the need for wider professional connection and participation, in order to consolidate the wider CM profession in Australia. This may also reflect recent acknowledgement of the benefits found in mentoring for the mentor, including possible personal and professional development.[16] The request for support of mentors, and not just mentees, was another finding of this survey. The benefit of supporting mentors for the strength of the profession has been recognised in the field of nursing.[17]

The recognition of post-graduate education, such as in the medical profession in Australia and CM colleges in USA, as well as the development and promotion of good practice standards, is part of the 4th Term Strategic Plan of the Chinese Medicine Registration Board of Victoria.[19] In recognition of the upcoming need for more formalised CPD and clinical supervision, policy and supervision guidelines by the Chinese medicine registration board of Victoria have been released this year.[20] With the requirement for demonstration of continuing professional development within the upcoming national registration CM in 2012, a formalised mentoring program as guided by this and other research, may be supportive to the profession at this time. While ultimately a formal mentoring program may not be the most effective delivery of professional support for new and practicing CM practitioners in Australia, results from this study will provide the basis for a pilot study investigating mentoring in Chinese medicine, due to begin in 2012 through Monash University.

The particular recognition that mentoring is a reflection of the increasing professionalisation of CM in Australia was expressed as meaningful by participants. As with other professions, support for new and at risk practitioner members may be seen as an important aspect to the development of a wider culture of professionalism and not just for the individuals involved.[21] Cosgrove[10] argues that the use of mentoring is like CM itself, reflecting prevention and support of the development of a balanced professional life. Savage[12] suggests that while mentoring may be understood differently by different people, it is inherent in the CM philosophy of holism and the maturation of the profession.

Conclusion

From this survey, it can be seen that overall mentoring is desired by AACMA members and may be viewed as potentially beneficial for individual practitioners as well as the wider CM community. Results suggest that mentoring was understood in a variety of ways by AACMA members, and that flexibility in structure and implementation of a formal mentoring program is desired, according to the needs of the mentor and mentee. Also, while there should be some restrictions on who can be a mentor, it was largely reported that there should be no restrictions on who may participate as a mentee. The majority of respondents felt that there should not be any charges or fees and that recognition be

obtained by CPE points. Participants felt that mentoring may be a way to support not only practitioners at risk but anyone who would like help in their Chinese medicine practice, as well as contributing to the overall standing of the profession. With national registration of the CM profession commencing in July 2012, professional associations must ensure they are providing the services and support to their members in the area of professional development. Results from this survey support the notion that the implementation of a pilot mentoring program, auspiced by a professional association such as AACMA, is worthy of active investigation, and may be beneficial for the CM profession at this time.

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Disclaimer

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Clinical Commentary

Continuing professional development as a means to enhance clinical practice skills, update clinical knowledge, and increase professional attributes of new and existing practitioners is a current requirement for professional association membership and soon-to-be requirement for national registration. Mentoring may be a way to provide this professional development and support for individual practitioners in clinical practice. Results from the 2008 mentoring survey performed by AACMA suggest that mentoring is desired by practitioners, and offers insight into members' perceptions and requirements for mentoring. These preliminary findings support the establishment of a pilot mentoring program by AACMA.

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APPENDIX 1 Mentoring Survey – October 2008

1. Which of the following best describes your understanding of mentoring? (Please tick; if more than one applies, please rank in order of importance)
   - ☐ Formal mentoring program – where the one-t-one relationship between mentor and mentee is facilitated and supported by AACMA
   - ☐ Informal mentoring – where the relationship between mentor and mentee is created spontaneously and maintained informally by the mentor and mentee
   - ☐ Semi-formal mentoring – a combination of the above
   - ☐ Group mentoring – where more than two individuals come together, with one or more in the group providing support or direction to the others
   - ☐ Co-mentoring – where both parties recognise the shared benefit for all in the relationship and both act in the role of mentor and mentee
   - ☐ E-mentoring – where the relationship between the mentor and mentee occurs primarily or exclusively online
   - ☐ Other (please describe)

2. What do you see as the purpose of a mentoring program? (Please tick; if more than one applies, please rank in order of importance)
   - ☐ To develop technical skills and knowledge
   - ☐ To learn how to run a small business
   - ☐ How to deal with difficult patients
   - ☐ How to deal with difficult health problems
   - ☐ To develop a better understanding about patient management
   - ☐ To expand professional networks
   - ☐ For social contact
   - ☐ Other purpose(s), (please describe)

3. Which of the following activities could be considered part of mentoring? (Please tick; if more than one applies, please rank in order of importance)
   - ☐ Attendance at seminars and workshops
   - ☐ Study groups (for example, initiated and run by members in a local area)
   - ☐ Case discussion groups (for example, as run by AACMA State Committees)
   - ☐ Clinical forums (for example, as run by AACMA State Committees)
   - ☐ Fellows Dinners (for example, where Fellows meet together, with a speaker followed by discussion)
   - ☐ Observation in an experienced member's clinic
   - ☐ Acting as a clinical assistant in an experienced member's clinic
   - ☐ Working under the supervision or direction of a senior practitioner
   - ☐ Volunteering as a practitioner or assistant in a community health centre (for example, the Hands on Health free acupuncture clinics in Victoria targeted at the financially disadvantaged)
   - ☐ Regular one-on-one contact with a designated practitioner for discussion about practice/professional matters
   - ☐ Regular group contact with a designated practitioner for discussion about practice/professional matters
   - ☐ Professional supervision (for example, a formal 'counselling' relationship to discuss professional issues)

4. Do you think mentors should receive formal training to be a mentor? Please give reasons
   - ☐ Yes
   - ☐ No

5. Should there be any restriction on who can be a mentor? Please give reasons
   - ☐ Yes
   - ☐ No

6. Should mentors be required to have a certain number of years in practice?

- ☐ Yes – 20 years
- ☐ Yes – 10 years
- ☐ Yes – 5 years
- ☐ No

Comments:

7. Should there be any restriction on who can be a mentee? Please give reasons

- ☐ Yes
- ☐ No

8. Please rank, in order of importance, the type of members who could be a mentee?

- ☐ Final year student
- ☐ Neophyte practitioner – 1st or 2nd year out
- ☐ Practitioner with 3-5 years experience
- ☐ Practitioner returning to practice after a period of non-practice
- ☐ Practitioner with under 10 years experience
- ☐ Anyone – so long as they feel they need help

Comments:

Formal Training of Mentors

9. Are you interested in participating in a formal AACMA mentoring program? (tick whichever applies)

- ☐ As a mentor
- ☐ As a mentee
- ☐ Not interested at this time
- ☐ Not at all interested

10. As a mentor, would you be interested in

- ☐ A formal mentor training course leading to an award
- ☐ A semi-formal seminar-based training program

11. Please advise your preference (Please tick; if more than one applies, please rank in order of importance)

- ☐ I would like to obtain a formal award such as a graduate certificate
- ☐ I would be happy with a non-award certificate of attendance
- ☐ A statement of attendance for CPE purposes is sufficient
- ☐ Don't care

12. What do you think the length of a (part-time) mentoring training program should be? (Please tick; if more than one applies, please rank in order of importance)
    - ☐ 3 months
    - ☐ 6 months
    - ☐ 12 months
    - ☐ Ad hoc seminar-based training
    - ☐ Other (please specify)

13. What delivery mode would best suit you? (Please tick; if more than one applies, please rank in order of importance)
    Face-to-face formal training with contact on:
    - ☐ A weekly basis
    - ☐ A fortnightly basis, or
    - ☐ A monthly basis
    - ☐ On-line with face to face elements
    - ☐ On-line with chat-room or phone contact access
    - ☐ Correspondence/distance mode
    - ☐ Ad hoc face to face seminars

Other

14. Should there be any charges or fees for mentoring?
    - ☐ Yes – paid by the practitioner for mentor training
    - ☐ Yes – paid to the mentor by the mentee (s)
    - ☐ No – no charge for mentoring

    Comments:

15. Please add any comments that you think would assist with the development of a mentoring program?

Should we wish to follow up on your responses, it would be helpful if you supplied your name and contact number.
Name (optional)
Contact phone (optional)
Thank you for taking the time to complete and return this survey.

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Australian Journal of Acupuncture and Chinese Medicine

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Appendix 4: Preparedness for clinical practice in final year Chinese medicine students: an Australian study

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Chinese Medicine Students' Preparedness for Clinical Practice: An Australian Survey

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Abstract

Background: Little is known about how prepared Chinese medicine (CM) students perceive themselves to enter the workforce.
Objective: The objective of this study was to investigate perceptions of preparedness for clinical practice of final-year CM students in Australia.
Design: The study design consisted of a written survey focusing on eight dimensions relating to practice: Interpersonal Skills, Confidence/Coping Skills, Professional Networks, Professional Practice Management, Professional Patient Management, Prevention, Holistic Care, and Self-Directed Learning. Part 1 of the survey required participants to choose from six possible responses on how well they believe their CM course has prepared them in relation to 41 statements about aspects of practice (1 = very inadequately through to 6 = very adequately). Part 2 consisted of nine open-ended questions.
Study participants: The study participants were final-year Bachelor degree CM and acupuncture students from Australian universities and privately operated educational institutions.
Analysis and main outcome measures: Part 1 of survey: mean scores on the eight dimensions of practice. Part 2 of survey: transcribed responses were imported into NVivo8. Each part of the questions was analyzed and grouped into broad themes.
Results: Seventy-one (71) of one hundred and seven (71/107) invited students (average age 29.4 years ± 7.4 years) participated in the survey conducted in 2008. Mean scores on eight dimensions of clinical practice were as follows: Interpersonal Skills 3.9 (±1.1), Confidence/Coping Skills 4.0 (±0.8), Professional Networks 4.2 (±0.8), Professional Practice Management 4.2 (±0.8), Professional Patient Management 4.7 (±0.7), Prevention 4.6 (±0.7), Holistic Care 4.4 (±0.7), and Self-Directed Learning 4.6 (±0.6). There was no significant difference in mean scores across gender. Responses to Part 2 indicated a range of suggestions on the strengths of educational courses and how transition to clinical practice could be facilitated.
Conclusions: In general, CM students perceived themselves to be "somewhat adequately" or "adequately" prepared for various aspects of clinical practice. Survey results may help inform CM educators about how to better prepare students for entry into the workforce.

Introduction

Chinese medicine (CM) is a popular complementary and alternative medicine modality within Australia. Around 9% of the Australian population use acupuncture and 7% use Chinese herbal medicine.[1] The number of CM and acupuncture practitioners has more than doubled in Australia between 1996 and 2006 to 1428,[2] though this is likely to be an underestimate since in the state of Victoria alone (the only state to regulate CM practice via statutory regulation), there are almost 900 CM practitioners currently registered.[3] Similar workforce figures are not readily available for the other jurisdictions.

In response to increasing interest, demand, and professionalization, Bachelor's degree training in CM and acupuncture is now offered in several universities and privately

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operated education institutions in Australia, though diploma level training continues to be offered at a small number of institutions. Unlike many other professions within the health care industry, there are few salaried employment opportunities for CM. Instead, graduates need to establish their own businesses, sublet rooms, or work for commission, requiring a high level of proactivity. It is not known how many CM graduates successfully make the transition into clinical practice. Despite the availability of high-quality education courses in CM in Australia, the transition into independent practice is a significant step, and little is known about how well prepared final-year CM students perceive themselves to be for entry into the workforce.

The majority of research on preparedness for clinical practice is from the orthodox medical field. An Australian study found that "beginner" acupuncturists tend to practice using a problem-focused or technical–rational approach, rather than a flexible, client-empowering approach, the latter of which is argued to be more suited to the complexities of CM practice in the West and provide better treatment outcomes.[4] Ryan argues for CM curricula reform to encourage a more student-focused, learning-centered, and practice-oriented teaching approach, which may improve beginning clinicians' preparedness for practice (Ryan D, unpublished Ph.D. thesis, Victoria University, 2003). The literature is equivocal with regard to perceptions of preparedness for clinical practice of medical and nursing students. There is evidence that some medical and nursing students do not feel adequately prepared for professional practice,[5–7] whereas other surveys of graduating Australian medical and dental students[8,9] and first-year medical interns[10,11] indicate that overall, survey respondents did feel prepared. A U.S. study of final-year graduate program medical students found that overall, students rated their preparedness to provide common clinical services as high, despite the fact that these students felt inadequately prepared in certain areas.[12]

Concern about the preparedness for practice of new CM graduates in undertaking the transition from student to independent clinician forms the backdrop to this study, which was a survey of final-year CM students in Australian degree programs.

Objectives

The study objective was to assess final-year Australian CM students' perceptions of their preparedness for clinical practice on completion of their formal training.

Methods

Subjects and study design

A survey was conducted of final-year CM students from all education institutions in Australia offering 4- or 5-year Bachelor's degree courses in CM. The majority of education institutions offer 4-year dual-modality courses (training in both acupuncture and Chinese herbal medicine), with the exception of RMIT University (5-year dual-modality course) and Endeavour College (4-year single-modality course in acupuncture, with some training in herbal medicine). Participating education institutions were RMIT University, Victoria University, Southern School of Natural Therapies, Endeavour College (Melbourne and Brisbane campuses), University of Western Sydney, and University of Technology Sydney. The survey was conducted between October and December 2008. Ethics approval was granted by the Victoria University Faculty of Health, Engineering, and Science Human Research Ethics Committee.

Survey instrument

The survey consisted of two parts, described below. The questionnaire was initially piloted for content validity on 3 CM students, 2 CM academics, and an educational academic for content validity, relevance, and clarity.

Part 1. Part 1 of the survey was based on a questionnaire created by Hill and colleagues,[10] the "Preparation for Hospital Practice Questionnaire" (PHPQ), designed to measure preparedness for clinical practice of Western medical practitioner interns. The PHPQ consisted of 41 questions that were subdivided into eight main areas relating to clinical practice. Twelve (12) of the 41 PHPQ questions were modified slightly for our survey, and 5 questions were replaced by questions more relevant to CM practice. The survey questions used for this study are set out in Appendix 1.

Part 1 of the survey consisted of 41 statements about aspects of CM practice. Participants were required to choose from six possible responses with respect to how well their CM training prepared them in relation to each specific topic: very inadequately, inadequately, somewhat inadequately, somewhat adequately, adequately, and very adequately.

The 41 questions in our survey related to eight dimensions or areas of CM clinical practice. These dimensions were similar to those identified by Hill and colleagues[9] but with some modification to the subcategories and definitions. The eight dimensions are defined as follows:

- Dimension 1 Interpersonal Skills: effective and competent communication with patients, particularly in difficult situations. (Q20, Q30)
- Dimension 2 Confidence/Coping Skills. (Q2, Q6, Q17, Q3, Q26)
- Dimension 3 Professional Networks: the importance of a team approach to care of patients that recognizes the role of other health practitioners and practices in patient management and recognizes the value of being part of a professional network. (Q7, Q22, Q28, Q37, Q40, Q41)
- Dimension 4 Professional Practice management: capabilities to manage the day-to-day running of a practice in a professional manner. (Q8, Q36, Q33)
- Dimension 5 Professional Patient Management: capabilities and skills to manage treatment of patients in a professional manner. (Q4*, Q11, Q12, Q13, Q19, Q25, Q29, Q31)
- Dimension 6 Prevention: preparedness to incorporate health and disease prevention into practice. (Q5, Q9, Q18, Q32, Q34)

*Question 4 (relating to ability to carry out raw herbal preparation techniques) was later deleted from the analysis of this dimension since it was not applicable to students completing degree courses in acupuncture only.

- Dimension 7 Holistic Care: an appreciation of the impact of multiple variables on a patient's health and disease. (Q1, Q15, Q16, Q21, Q24, Q35)
- Dimension 8 Self-Directed Learning: evaluation of performance, identification of educational needs and extension of knowledge and skills. (Q10, Q14, Q23, Q27, Q38, Q39)

Part 2. Part 2 of the survey consisted of nine open-ended questions relating to preparedness for clinical practice including course critique and issues related to transition from student to practitioner. Of these nine questions, two were specifically aimed at students in the state of Victoria where there is statutory regulation of CM practice (the other states and territories being self-regulated via professional associations). Part 2 questions are set out in Appendix 2.

Data analysis

The quantitative data were analyzed using the statistics package SPSS 15.0 for Windows, and qualitative data were thematically analyzed with the assistance of the qualitative software NVivo8. For this analysis, responses were combined for all institutions.

Part 1 of Survey

Dimension reliability analysis

Internal consistency or reliability of items within each of the eight dimensions was analyzed by calculating the Cronbach α coefficients (α). Systematic deletion of items and recalculation of α coefficients was conducted to maximize reliability. It is generally accepted that if the α coefficient is greater than 0.70, there is an acceptable level of internal consistency.[13]

Descriptive statistics for eight dimensions

Mean scores and their standard deviations were calculated for each of the eight dimensions and for females and males.

In order to investigate whether there was a statistically significant difference in mean scores for the eight dimensions between males and females, one-way analysis of covariance (ANCOVA) was conducted. A model was set up in which the dependent variable was each of the eight dimensions (in turn), the fixed factor was gender, and the covariates were age, previous health care industry experience, and previous business experience. Levene's test of equality of variances was performed. A significance level of 0.05 was considered statistically significant.

Part 2 of Survey

The transcribed responses to the open-ended questions were imported into NVivo8 with the independent variables or "attributes" of each respondent preserved as "cases" linked to each survey. The preservation of attributes enabled greater depth and breadth of analysis. The use of the qualitative software facilitated a level of quantitative analysis of the responses arising from the long answer questions. As each question has its own explicit purpose or theme, thematic analysis was kept within the question domains (Table 1). Questions with multiple "parts" were separated (Q3, Q5, Q6, Q7) and each part of the question was analyzed and grouped into broad themes or categories arising from the data. Some questions or parts of questions yielded easily quantifiable responses (Q3a, Q4, Q5, Q6, Q7a, Q8, Q9) with one response per respondent, whereas other questions yielded multi-themed responses (Q1, Q2, Q3b Q7b and Q7c) where the sum of responses for that question is greater than 100%.

Results

Survey respondents

Surveys were distributed to a total of 107 final-year CM students (out of a total of 144 students who were enrolled in the final year of CM degree programs from the seven participating institutions). A total of 71 students (45 females, 26 males) completed the survey, yielding a response rate of 66.4%.

The average age of respondents was: 29.4 ± 7.4 years (females 29.0 ± 6.5 years and males 30.0 ± 8.8 years). Twenty (20) respondents (14 females, 6 males) had previous experience working within the health care industry. Twenty (20) respondents (10 females, 10 males) had previous experience running a small business. Baseline characteristics of survey respondents are set out in Table 2.

Results Part 1 of Survey

There were missing data for age ($n = 2$), previous small business experience ($n = 1$), one missing case each for the following questions (Q24–Q26, Q28–Q37, Q40) and two missing cases for Q27.

Dimension reliability. All Cronbach α coefficients were 0.75 or greater with the exception of the Professional Practice Management dimension (α coefficient 0.43). Progressive deletion of the three statements that made up this dimension did not improve the α coefficient.

Eight dimensions of clinical practice. Question 4 (relating to ability to carry out herbal preparation techniques) was deleted from the analysis of Dimension 5 Professional Patient Management as the degree courses completed by students from two of the institutions focus on acupuncture and do not cover raw herbal preparation.

There were two missing cases for three of the dimensions (Professional Networks, Holistic Care, and Self-Directed Learning) and one missing case each for the other dimensions. The mean scores for each of the eight dimensions overall and for females and males are set out in Table 3.

With respect to the ANCOVA, the requirement for equality of variances was upheld. There were 4 missing cases for six dimensions and 5 missing cases for two dimensions. After controlling for the effect of the covariates, ANCOVA indicated that there was no significant difference in mean scores for any of the eight dimensions between females and males. The covariates (age, previous business experience, and previous health care industry experience) were not significantly related to any of the eight dimensions and gender did not have an affect on any of the eight dimensions.

Results Part 2 of Survey

Sixty-six (66) of the 71 respondents partially or fully completed Part 2 of the survey. Table 1 provides a broad

Table 1. Analysis of Part 2 Open-Ended Responses

Q.	Theme	Response	No. & percentage of respondents for question		Total percentage N = 71
1	**Best aspects of CM program**		***N* = 61**		**86%**
		Clinical practice and experience	37	61%	52%
		Knowledge of theory and CM practice	19	31%	27%
		Aspects of teaching, including teaching staff	10	16%	14%
		Practice establishment and management lessons	6	10%	8%
		Opportunity to network and gain mentorship	3	5%	4%
		No best aspects	1	2%	1%
2	**Improvements needed to the program**		***n* = 59**		**76%**
		Course content: Fill missing areas of knowledge, especially herbal medicine ($n = 9$), practice management ($n = 8$)	32	54%	45%
		Student clinic & gaining clinical experience	25	42%	35%
		Interpersonal skills	7	12%	10%
		Mentoring	5	8%	7%
		General improvements to all aspects of program	3	5%	4%
3a	**Preparedness for practice**		***n* = 56**		**82%**
		Feels prepared or reasonably well prepared	31	55%	43%
		Somewhat prepared	8	14%	11%
		Not prepared	17	30%	24%
3b	**Suggestions to better facilitate transition to practice**		***n* = 34**		**48%**
		Mentoring & other external clinical experience	22	65%	31%
		Business establishment & management skills	7	21%	10%
		Support networks for graduates	6	18%	8%
		New graduate training and resources	5	15%	7%
		Changes to course structure/internship	4	12%	6%
4	**Expected mode of practice on starting practice**		***n* = 64**		**90%**
		Multipractitioner practice	39	61%	55%
		Sole trader	13	20%	18%
		Any or mixed types of practice (e.g., sole/multi)	6	9%	13%
		Don't know	4	6%	6%
		Apprenticeship	1	2%	1%
		Not intending to practice (yet)	1	2%	1%
5a	**Employment negotiation**		***n* = 61**		**86%**
		Negotiated or under negotiation	26	43%	37%
		No, not negotiated	35	57%	49%
5b	**Type of employment negotiated**		***n* = 21**		**30%**
		Room rental	9	43%	13%
		Subcontractor/percentage to clinic owner	7	33%	10%
		Salaried employee	3	14%	4%
		Teaching position	1	5%	1%
		Apprenticeship	1	5%	1%
6a	**Mentor(s) established?**		***n* = 64**		**90%**
		Yes, mentor(s) established	30	47%	42%
		No mentor	30	47%	42%
6b		Having a mentor increases confidence	20	31%	28%
		Mentor relationship has not worked	1	2%	1%
6c		No mentor but would consider professionally arranged mentor	20	31%	28%
		Have mentor but would consider professionally arranged "official" mentor	8	13%	11%
		No mentor and do not want one	1	2%	1%
		The profession should provide mentors	10	16%	14%

(*continued*)

Table 1. (Continued)

7a	**Previous clinical or related experience perceived to aid practice**		**$n = 60$**	**85%**
	Yes	33	46%	55%
	No	27	38%	45%
7b	**Areas of previous clinical or related experience perceived to aid practice**		**$n = 30$**	**42%**
	Complementary medicine related	11	37%	15%
	Business and accounting	5	17%	7%
	Medical receptionist	4	13%	6%
	CM student clinic	3	10%	4%
	Carer	2	7%	3%
	Nursing	2	7%	3%
	Social work	1	3%	1%
	Teaching	1	3%	1%
	Animal chiropractic and physiotherapy	1	3%	1%
	Hospitality	1	3%	1%
7c	**How previous experience adds to practice**		**$n = 19$**	**27%**
	Client communication, rapport	7	37%	10%
	Business management skills	7	37%	10%
	Increase of confidence	4	21%	6%
	Ready clientele to switch to new treatment	1	5%	1%
	Increased versatility as a practitioner	1	5%	1%
	Already practicing	1	5%	1%
			Victorian respondents $n = 41$	
8[a]	**Understanding CMRB policies & guidelines**		**$n = 40$**	**98%**
	Understand	20	50%	49%
	Some aspects need further clarification	11	28%	27%
	Don't understand	9	22%	22%
9[a]	**Adhering to CMRB policies & guidelines**		**$n = 37$**	**90%**
	Yes—confident in adherence	33	89%	80%
	Doubtful about confidence to adhere	4	11%	10%

[a]Relevant to the state of Victoria only.
CM, Chinese medicine; CMRB, Chinese Medicine Registration Board of China.

summary of responses and outlines the number and percentage of respondents for each question (calculated with $N = 71$) and the number and percentage of respondents per theme within a question (n = number of respondents for that question). The following section highlights some of the results outlined in Table 1 and expands on themes arising from participant long answer responses.

Perceptions of preparedness for practice. Thirty percent (30%) of Q3 respondents (24% of all survey respondents) indicated not feeling prepared for the transition to clinical practice. Although the majority of respondents considered themselves prepared or somewhat prepared for clinical practice, some of those respondents ($n = 10$) made explicit that their preparedness was not necessarily due to their training, but to the experience and knowledge gained with an external mentor, or through previous clinical experience. One (1) respondent differentiated between being prepared to practice and being prepared to establish a clinic, feeling prepared for the former but unprepared to accomplish the latter. Issues around preparation for practice establishment and business management were repeatedly raised in response to a number of questions. Some respondents with previous clinical experience outlined how they perceived this experience to add to their practice (Q7) and facilitate preparedness.

Education programs and preparedness for practice. The experience gained through student clinic and clinical studies, including external clinical observation, was cited most frequently as the best aspect of their program (61% of question respondents). Students without prior experience in the health care industry were more likely to say that clinical experience was a "best" aspect ($n = 27$) than students with prior experience ($n = 10$). Knowledge gained relating to CM theory and practice was the second most cited "best" aspect of the program (31%), in particular knowledge of CM theory, diagnosis, and treatment ($n = 12$), but also of biomedicine ($n = 2$), holistic practice ($n = 1$), integration of TCM into a modern setting ($n = 1$), and the gaining of knowledge to practice and research independently ($n = 5$). Teaching staff where nominated by 13% of question respondents for their role in facilitating preparedness for practice.

Several course improvements were suggested: in particular, improvements to the teaching of herbal medicine and to practice establishment and management. Nine (9) respondents from six institutions suggested improvements to the former, and 8 respondents from three institutions recommended the latter. Interpersonal skills including facilitating rapport and dealing with emotional issues and difficult clients were also highlighted by some as lacking ($n = 7$ across four institutions).

Although clinical aspects of the course where frequently nominated as the "best" aspects of the course facilitating preparedness for practice, a significant number of respondents nominated clinical aspects to be in need of improvement ($n = 24$). Twelve (12) respondents simultaneously nominated clinical aspects of the course to be the "best aspect" and to be "in need of improvement." Criticism of clinical aspects of the course included (1) not enough

Table 2. Baseline Characteristics

	Overall	*Female*	*Male*
No. of respondents	71	45	26
Age (years, SD)	29.4 ± 7.4 ($n = 69$)	29.0 ± 6.5 ($n = 43$)	30.0 ± 8.8 ($n = 26$)
Previous experience in health care industry	No: $n = 51$ (72%) Yes: $n = 20$ (28%)	No: $n = 31$ (69%) Yes: $n = 14$ (31%)	No: $n = 20$ (77%) Yes: $n = 6$ (23%)
Previous experience in small business	No: $n = 50$ (70%) Yes: $n = 20$ (30%) ($n = 70$)	No: $n = 34$ (77%) Yes: $n = 10$ (23%) ($n = 44$)	No: $n = 16$ (62%) Yes: $n = 10$ (38%)
Four- or 5-year degree	Five-year degree: $n = 14$ Four-year degree: $n = 57$	Five-year degree: $n = 10$ (22%) Four-year degree: $n = 35$ (78%)	Five-year degree: $n = 4$ (%15) Four-year degree: $n = 22$ (85%)

SD, standard deviation.

clinical work and observation, (2) numbers of students too high in student clinic, and (3) clinic being "based on students observing and learning from other students" because of too few clinic supervisors. Some students who had undertaken internship in China felt that the time was unproductive and needed more "hands on" time, and that it would have been better to spend more time getting clinical experience in Australia ("where we will be working!"). Lack of mentoring was raised as an area needing improvement.

Other mechanisms to facilitate transition to practice. When students were asked how they thought their transition into the profession could be facilitated (Q3b), 7 respondents from five institutions highlighted the need for better business establishment and management skills. These respondents were not all the same as those at Q2 who suggested the need for course improvements around business management. When the results from the two questions are combined, 14 respondents from six institutions (20% of all survey respondents) think improvements are needed in the teaching of business management—only 2 of the 14 who believed this had previous experience in the health care industry. The provision of resources to graduates, including support networks, forums, or a clinical manual, were also suggested. The most common suggestion for better facilitation of transition to practice was through mentoring (65% of question respondents), including changing course structure to accommodate "compulsory" mentorship or internship programs ($n = 4$).

Thirty (30) respondents indicated that they already had a mentor (or mentors); the same number said they did not (Q6). Of the students with an established mentor, 15 had prior experience in the health care industry. In contrast, of the 30 students without mentors, only 4 had previous health care industry experience, perhaps suggesting that those with prior health care industry experience place greater value on being mentored or find it easier to establish mentoring relationships than those without such experience. About one third of respondents to Q6 specifically indicated that having a mentor increased their confidence in entering clinical practice, although 1 respondent reported that the mentoring arrangement she was "supposedly" in with her employer had not "eventuated" and had left her lacking in confidence. Of those without mentors, 20 said that they would consider entering into a mentor relationship organized by the profession. A number of respondents already in mentor relationships said they would also like "official" mentors provided by the profession ($n = 8$).

Intentions for practice. The majority of Q4 respondents indicated a preference for working in multipractitioner practices (61%). Of these, 49% preferred practice with other CM practitioners, 33% multidisciplinary settings, and 18% not minding the type of multipractitioner practice. A small number of respondents ($n = 5$) indicated that they would like to start in group practice where support from other practitioners is readily available, then move to solo practice when they feel sufficiently prepared. Solo practice was the preferred mode of practice for 20% of respondents. A few re-

Table 3. Mean Score for the Eight Dimensions

Dimension[a]	*Mean score*[b] *(SD)*	*Mean score females (SD)*[a]	*Mean score males (SD)*[c]
Interpersonal skills ($n = 70$)	3.9 ± 1.1	3.7 ± 1.2	4.1 ± 0.9 ($n = 25$)
Confidence/coping skills ($n = 70$)	4.0 ± 0.8	3.9 ± 0.8	4.2 ± 0.6 ($n = 25$)
Professional networks ($n = 69$)	4.2 ± 0.8	4.1 ± 0.8	4.4 ± 0.7
Professional practice management ($n = 70$)	4.2 ± 0.8	4.1 ± 0.9	4.3 ± 0.7 ($n = 25$)
Professional patient management ($n = 70$)	4.7 ± 0.7	4.7 ± 0.7	4.7 ± 0.8
Prevention ($n = 70$)	4.6 ± 0.7	4.5 ± 0.8	4.7 ± 0.6 ($n = 25$)
Holistic care ($n = 69$)	4.4 ± 0.7	4.3 ± 0.8 ($n = 44$)	4.6 ± 0.5 ($n = 25$)
Self-directed learning ($n = 69$)	4.6 ± 0.6	4.5 ± 0.6 ($n = 44$)	4.6 ± 0.6 ($n = 25$)

[a]Calculated for $n = 45$ female respondents.
[b]Preparedness rated on scale of 1–6 where 1 = very inadequately, 2 = inadequately, 3 = somewhat inadequately, 4 = somewhat adequately, 5 = adequately, 6 = very adequately.
[c]Calculated for 26 male respondents.
SD, standard deviation.

spondents plan to divide their work between multiple sites and types of clinics. While a small number do not know the mode of practice they intend to enter into ($n = 4$), only 1 respondent indicated that she does not intend to practice yet. Thirty-seven percent (37%) of all respondents have, or are negotiating, employment, with some indicating they will work within existing practices, paying a percentage to the clinic owner, and others that they will be paying for room rental. No salaried positions were referred to.

CM practice within a regulatory environment. Two (2) long-answer survey questions were directed specifically at CM students in Victoria where the Bachelor degree programs incorporate instruction around the requirements of the Chinese Medicine Registration Board of Victoria (CMRB).[14] Forty-one (41) survey respondents were from Victoria. Twenty (20) respondents reported that they understood the CMRB guidelines and policies. Despite another 20 either not understanding the policies and guidelines ($n = 9$) or only partially understanding them ($n = 11$), 33 said they were confident in their ability to adhere to the guidelines. Of the few who were not so confident, only 1 gave a reason: confusion regarding the advertising guidelines that "seem to keep changing" and difficulty in finding clinic rooms with hand basins installed.

Discussion

Although the qualitative component of this study found that almost a quarter of all respondents do not feel prepared for clinical practice, this finding is moderated by the overall results of the quantitative section, which suggests that final-year CM students feel either somewhat adequately or adequately prepared when clinical practice is defined with respect to the eight different dimensions of CM practice used in this study. The qualitative component of the survey elucidates some important information relating to modes of practice that students intend to engage in, aspects of CM courses that have helped or hindered in facilitating preparedness for practice, and how the transition to clinical practice could be better facilitated within educational courses.

Only a small amount of research has been undertaken specifically on the CM workforce in Australia.[15] Anecdotal and observational evidence suggests that in contrast to orthodox medicine and other allied health practices, salaried positions are uncommon within the CM profession (whose primary means of income is CM). Our research supports this with graduating CM students seeking solo practice, subcontracting, and/or room-renting arrangements on their entry into the workforce. Working in salaried employment alongside more experienced colleagues affords inexperienced practitioners opportunities to avail themselves of support in developing their skills and confidence, with some financial security. Over a third of all survey respondents have engaged in employment negotiations prior to their graduation, indicating a reasonably high level of employment proactivity. Nonetheless, the majority of students surveyed were yet to negotiate their employment. Further study is needed to determine the percentage of graduates who successfully make the transition from student to clinician.

With respect to the educational experience of CM students, the clinical component of courses, while cited as one of the better aspects, was also nominated as in need of improvement. Of particular interest were some of the less positive student comments on their experience of clinical internships undertaken in China, an option in a number of CM courses in Australia. Clinical experience within Chinese hospitals affords an opportunity to experience a wide variety and typically high volume of clinical conditions, as well as to witness the coexistence and operation of a dual medical system, namely, Chinese medicine and Western medicine. However, often the learning is "passive" whereby students "follow" doctors, listening to their diagnoses and treatments. This is contrasted with a more "active" learning style favored in later years of Australian CM courses in which students take responsibility for diagnosis and treatment of patients, under supervision of qualified practitioners. Careful thought and collaboration between Western and Chinese educational institutions may result in enhanced learning experiences for Western students.

Other criticisms about the clinic experience related to patient, student, and supervisor numbers. Striking the right balance in patient numbers and staff–student ratios in student teaching clinics can also be difficult. Teaching clinics may not operate all year round and student numbers often decrease during semester and end-of-year breaks. Consequently, business may fluctuate. Economic rationalization of funding to courses also impacts on staffing. The clinical components of CM courses are typically costly.

Another popular suggestion from respondents was improved business establishment and management instruction. With most graduates seeking some form of self-employment, such knowledge is essential. Although many CM courses incorporate some business development instruction, educators may need to reexamine whether they are developing in students adequate capabilities in this area and look for innovative ways in which to improve this aspect of courses.

Mentoring was the most common suggestion for how the transition into practice can be facilitated, with many respondents having already established a mentor. In the field of nursing, where 30%–54% of newly graduated nurses have been found to change jobs or leave the profession due to a perception of being inadequately prepared for clinical work and lack of a supportive environment,[16] mentoring programs have been successful in many respects. These include drawing first-year students into study and in facilitating the transition from student to independent practitioner,[17] helping develop a range of skills (including clinical competencies and confidence in problem solving), and fostering a culture of collegiality and scholarship.[16] It is unknown how many CM graduates successfully transition into the CM workforce, on what basis, and whether they remain in the profession. Anecdotal evidence suggests that many do not gain or create full time employment. For those 30 CM students surveyed who had established a mentor relationship, there were as many who had not. This indicates an educational opportunity for educators, professional associations, and alumni to facilitate such relationships, which may lead to smoother transition into the workforce and improved retention rates within the profession.

In Western medical education, medical school curricula, faculty role models, and biomedical research funding have been shown to influence career choices of graduates.[18] It is unknown how these factors affect career choices in CM

graduates. CM research funding is comparatively very small, and opportunities to develop careers within academia are more limited due to the comparatively small size of the profession. There have been differences found in preparedness for medical practice between graduates of courses that have utilized a problem-based curricula compared with more traditional training,[10,11] something that may be of relevance to CM courses. Student participation in bridging programs that provide support for the transition between new graduate and clinician such as described by Fisher and colleagues[19] may be another means of facilitating preparedness for practice and perhaps also increasing long-term employment rates.

The information that only half of graduating CM students understood the CMRB guidelines and policies, which they have a legal mandate to adhere to, is important feedback for educators and suggests that more needs to be done to better inform the students. Although Victoria is currently the only state with statutory regulation of CM, this may change in the future, necessitating CM educators in other states and territories to incorporate into curricula information about a greater range of regulations, policies, and guidelines of relevance to CM practice.

Limitations of the Study

A decision was made at the beginning of the study to only report aggregate data for students participating in the study rather than stratify according to particular institutions, in order to maximize participation of education institutions. It was not the intention of this study to make comparisons between institutions, although it is acknowledged that this may be of interest to some readers. In addition, a comparison between institutions would have been limited due to small sample sizes.

Limitations to surveys include the tendency for subjects to overinflate ratings as well as the possible influences of the respondents' situated environment on ratings of individual items.[20] The surveys were conducted during the final months of CM programs when students were likely to be under stress. It remains a possibility that this could have negatively influenced ratings.

This study was interested in how prepared students perceived *themselves* to be for aspects of clinical practice *prior* to entering the workforce. Self-perceptions of preparedness for clinical practice by a student, of course, do not necessarily equate with actual performance (as judged by a more experienced clinical teacher, for example). A planned follow-up study of graduates who completed this survey (and who indicated they would be interested in participating in a follow-up survey) will investigate how confident these new practitioners perceive themselves to be in relation to aspects of CM practice, 1 year into clinical practice.

As previously mentioned, caution should be applied in interpreting the findings for the Professional Practice Management dimension (low α coefficient). The interpretation and generalizability of Part 2 responses is limited because items "counted" as issues or themes are self-generated by the respondents rather than from a list of possible responses. Because a topic or issue is not included in a particular survey does not conclusively mean that it is not an issue of concern for that individual; it may not have come to mind at the time.

Conclusions

The majority of final-year CM students perceive themselves to be somewhat adequately or adequately prepared to enter the workforce, but there is room for improvement in education courses and ways in which the profession may facilitate the transition into the workforce. It is acknowledged that perceptions of preparedness for practice do not necessarily equate with capabilities. However, confidence tempered with knowledge of one's level of knowledge and skill is undoubtedly better than a perception of lack of preparedness for practice. As the CM profession matures and education models change, new ideas are likely to emerge regarding the capabilities that need to be developed in students and how education institutions and the profession more broadly may best facilitate these. It is our hope that this research will help stimulate these thought processes.

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(Appendix follows →)

Appendix 1. Preparation for Clinical Practice Survey Part 1

Please choose one response from the six (6) possible responses (tick the relevant response) for the following statement as it relates to each topic below.

"My Chinese medical (CM) training prepared me to ……..."

Possible responses:

O very inadequately O inadequately O somewhat inadequately O somewhat adequately
O adequately O very adequately

1. Evaluate the impact of lifestyle factors on illness
2. Cope with stress caused by my work
3. Recognize my own clinical limitations
4. Carry out basic herbal preparation techniques
5. Discuss health risk behaviors with patients
6. Cope with my own emotions in clinical situations
7. Seek out help with novel clinical situations
8. Undertake daily clinical administration (e.g., answering phones, coordinating appointment bookings, invoicing)
9. Discuss relevant preventive health strategies with patients
10. Take responsibility for my own learning
11. Carry out basic acupuncture-related therapeutic techniques (e.g., acupuncture, moxibustion, cupping, *gua sha*)
12. Prescribe herbal prescriptions on the basis of a Chinese medicine syndrome diagnosis
13. Take a medical history with an initial consultation
14. Continually evaluate my performance
15. Understand the interaction of social factors with disease/illness
16. Appreciate the importance of a patient's cultural/ethnic background
17. Balance my work and personal life
18. Encourage patients to improve their health habits
19. Apply an understanding of basic and biomedical sciences to clinical conditions
20. Deal confidently with "difficult" patients
21. Appreciate the impact of poverty and unemployment on illness
22. Initiate and maintain membership with a professional association representing Chinese medicine practitioners
23. Evaluate my educational experience
24. Consider the influence that a patient's religion may have on his/her treatment regime
25. Carry out a Chinese medicine diagnosis using the four traditional methods of diagnosis (inspection, inquiry, auscultation/olfaction, palpation)
26. Remain calm in difficult situations
27. Invest time in developing my skills
28. Appreciate the importance of group dynamics when working within a team environment
29. Select herbal ingredients for inclusion in herbal prescriptions or select proprietary forms of herbal medicines (patent medicines) on the basis of their cost, risks, and benefits
30. Feel competent to counsel a distraught patient
31. Record clinical data (case records) systematically
32. Use opportunities to encourage patients to adopt healthier lifestyles
33. Adhere to State and Commonwealth regulatory requirements governing Chinese medicine practice (e.g., Infection Control guidelines, Adverse Event reporting, Standards for the Uniform Prescribing of Drugs and Poisons [SUPDP])
34. Provide education to patients and their families
35. Treat the patient holistically, that is, as a whole person
36. Set up and operate a business (e.g., business registration, accounting, tax, stock control, budgeting)
37. Approach other practitioners confidently for help in interpreting cases and/or treatment strategies
38. Identify my own educational needs
39. Keep up to date with Chinese medicine knowledge
40. Coordinate a comprehensive patient management plan with other allied health professionals (e.g., physiotherapists)
41. Refer my patients to their general practitioner when necessary

Appendix 2. Preparation for Clinical Practice Survey Part 2 Open Ended Questions

1. In terms of your overall preparedness for clinical practice, what were the best aspects of your Chinese medicine program?
2. In terms of your overall preparedness for clinical practice, what aspects of your Chinese medicine program could be improved?
3. Do you consider you will be prepared for the transition into clinical practice on completion of your Chinese medicine program? If not, how do you think your transition into the profession could be facilitated?
4. What mode of clinical practice do you intend to enter into once you complete your Chinese medicine program? (e.g., sole practice, group practice [with other Traditional Chinese Medicine practitioners], multidisciplinary practice [with other health care professionals], other).
5. Are you currently negotiating or have you already negotiated employment with a specific practice once you complete your Chinese medicine program? If so, can you please describe what employment arrangement this will be (e.g., salaried employee, renting a room in someone's practice with a percentage of patient fees paid to the practice)?
6. Have you already established a mentor within the Chinese medicine profession? If not, would you consider entering into a mentor relationship organized by the profession with someone already in practice and would this increase your confidence in entering clinical practice?
7. Do you already have previous clinical practice or experience in a related field that you perceive will aid your practice of Chinese medicine? If so, what is it, and how do you feel it will add to your practice?

Special questions for [state of] Victoria

8. Do you feel confident in your understanding of the Chinese Medicine Registration Board policies and guidelines (e.g., Infection Control Guidelines, guidelines for practice records and advertising)?
9. Do you feel confident in your ability to adhere to the Chinese Medicine Registration Board policies and guidelines?

Appendix 5: Confidence in clinical practice of Chinese medicine graduates: a pilot study

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Confidence in Clinical Practice of Chinese Medicine Degree Graduates 1 Year After Graduation: A Pilot Study

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Abstract

Background: The issue of transition from student to practitioner of Chinese medicine (CM) in Australia and other Western countries has received little formal attention. Workforce studies, while not up to date nationally in Australia, suggest that the majority of CM practitioners practice as sole practitioners or in small practices. Data from the state of Victoria suggest that a significant proportion of the CM workforce is relatively new to the profession. It is not known how many graduates successfully enter the workforce and importantly, remain in it.
Objectives: An initial survey of final-year bachelor degree CM students in Australian education institutions in 2008 suggested that students felt "somewhat" prepared for clinical practice in eight dimensions of clinical practice. The authors conducted a follow-up study to this initial one, seeking to investigate perceptions of confidence in CM graduates in various aspects of clinical practice within the first year of completing their degree.
Methods: A content-validated survey based on the previous study was distributed to a subset of 30 graduates from the original study cohort who had indicated a willingness to participate in this follow-up survey.
Results: There were a small number of responses ($n = 12$), limiting the usefulness of the quantitative questions. However, some interesting qualitative outcomes from the long-answer part of the survey support findings from the previous study that recent practitioners would like more clinical experience, as well as support in developing their business and interpersonal skills, and the option to participate in a professional mentoring arrangement.
Conclusions: Results of this study suggest that both education providers and professional associations may be able to play important and complementary roles in assisting CM students to successfully transition into the workforce. If CM is to continue to develop as a profession in Australia, it will be important that more attention be given to how to assist new graduates to successfully transition into and remain in clinical practice.

Introduction

The transition to clinical practice has long been acknowledged as a difficult time for new graduates in many professions.[1–5] Most of the studies in the literature of perceptions of work readiness within the health sector come from biomedicine,[6–10] nursing,[11] physiotherapy,[12] occupational therapy,[13] and radiography.[14] Studies from fields with comparable training include a study of perceptions of preparedness for clinical practice of new biomedical graduates in the United Kingdom,[9] which found that while 59% of newly qualified doctors felt their medical school training had prepared them well for their work, 15% felt inadequately prepared. These findings were reported as an improvement in comparison with previous findings, in which 41% of newly qualified doctors felt their training had not prepared them well for the tasks required of them in their new jobs.[10]

The need to understand the composition and experience of the CM workforce in Australia is emphasized by figures that show that popularity of complementary and alternative medicines such as Chinese medicine (CM) in Australia appears to be greater than previously estimated. In 2007, an estimated 7.5% of the Australian population had accessed CM services in the previous 12 months.[15] If the demand for CM services continues to grow, there will be a need for a steady influx of new CM graduates into the workforce in order to keep pace with demand and to replace those who will retire. However, to date there is little available literature on the nature of the CM workforce across Australia or indeed from other countries. The most recent available workforce data in Victoria, the only state and territory in Australia to regulate via statutory regulation the practice of CM, indicated that 27.3% of registered CM practitioners in Victoria had less than 5 years experience in clinical practice.[16] Thus, a

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substantial proportion of Victorian CM practitioners are relatively new to the profession. What is unknown are how many and what proportion of graduates of CM courses in Australia make a successful transition into practice and remain to develop a career, and how many don't. In addition, the enabling factors and the barriers to successful transition remain largely unknown.

In the previous Australia-wide survey conducted in 2008 on perceptions of preparedness for clinical practice of final-year CM students,[17] it was found that respondents felt "somewhat adequately" prepared for clinical practice in eight dimensions or aspects of practice. Study participants raised a number of issues of importance to educators, including a desire for improvements in clinical education, a need for further education in business management skills, and an interest in formal mentoring. With the results of this study in mind, there was interest in following up respondents of this survey to investigate the actual experiences of CM graduates 1 year following the completion of their Bachelor degree course. Therefore, a second survey was developed, based on the original one, to investigate perceptions of confidence in various aspects of clinical practice.

Methods

Study sample

Twenty-nine (29) CM graduates who were study participants from the previous Australian study on preparedness for clinical practice of final-year CM students[17] had indicated a willingness to be contacted about this follow-up study. The survey was supplied to participants either in hard-copy form by mail (along with a self-addressed, reply-paid envelope for its return) and/or via email with a link to the "Survey Monkey" survey tool home-page, allowing for completion of the survey on-line. The survey was conducted in March and April 2010. Ethics approval was obtained from the Victoria University Faculty of Health, Engineering and Science Human Research Ethics Committee.

Study design and instrument

A questionnaire was developed for the original survey[17] based on a medical graduate survey developed by Hill and colleagues,[8] with modifications to make it more applicable to CM students. This CM survey was modified further for the purpose of this current study, based on the previous surveys' results and content feedback: an additional six statements were included in the first part of the survey (closed-response statements) and questions were added to the second part of the survey (open-ended questions).

In the first part of the survey, there are 50 statements relating to aspects of clinical practice. The majority of the questions in Part 1 of the survey directly relate to questions in the previous 2008 survey,[17] with the main difference being that graduates were asked to indicate how confident they feel in relation to particular aspects of clinical practice. The statements fall under nine dimensions of practice, set out in Table 1. Participants were required to choose from six possible Likert scale responses as to how confident they currently assessed themselves to be in relation to these statements: very inadequately, inadequately, somewhat inadequately, somewhat adequately, adequately, and very adequately. In the second part of the survey, respondents were invited to answer 10 open-ended questions. The questionnaire was pilot-tested and refined to ensure content validity with four Australian CM educators/academics/professionals to ensure content validity. A copy of the questionnaire is included in the Appendix to this article.

Data analysis

The process of data analysis for the first part of the survey has been described in the previous study.[17] Cronbach's α

Table 1. Nine Dimensions of Clinical Practice

Dimension	*Description*	*Questions*
1. Interpersonal skills	Effective and competent communication with patients, particularly in difficult situations	Q20, Q30, Q46, Q47
2. Confidence/coping skills		Q2, Q3, Q6, Q17, Q26
3. Professional networks	The importance of a team approach to care of patients that recognizes the role of other health practitioners and practices in patient management and recognizes the value of being part of a professional network	Q7, Q22, Q28, Q37, Q40, Q41
4. Professional practice management	Capabilities to manage the day-to-day running of a practice in a professional manner	Q36, Q43, Q44, Q44
5. Professional ethics	Application in practice	Q8, Q33, Q42, Q45, Q49, Q50
6. Professional patient management	Capabilities and skills to manage treatment of patients in a professional manner	Q4, Q11, Q12, Q13, Q19, Q25, Q29, Q31
7. Prevention	Preparedness to incorporate health and disease prevention into practice	Q5, Q9, Q18, Q32, Q34
8. Holistic care	An appreciation of the impact of multiple variables on a patient's health and disease	Q1, Q15, Q16, Q21, Q24, Q35
9. Self-directed learning	Evaluation of performance, identification of educational needs and extension of knowledge and skills	Q10, Q14, Q23, Q27, Q38, Q39

coefficient,[18] a measure of internal consistency, was calculated for each of the nine dimensions. Data from the second part of the questionnaire were analyzed using NVivo8, and grouped into themes for thematic analysis. This survey used purposive sampling with a relatively homogeneous sample. The purpose of the open-ended questions in Part 2 was to describe what is likely to be shared opinions or perceptions about the practice of CM. For this purpose, Guest and colleagues[19] suggest that a sample size of as few as 12 ($n=12$) is sufficient.

Results

Survey respondents

A total of 12 respondents completed the survey of the 29 participants who were contacted, a response rate of 41%. Of the 12 respondents, 8 were practicing CM 1 year after completing their degree (5 part-time, 3 full-time) with the other 4 traveling overseas. Of the 8 who were practicing, 5 were practicing part-time and 3 full-time. Of the 11 responses to the question of whether or not they were engaged in other work, 7 indicated that they were. Survey participant demographic data are shown in Table 2. Of those practicing, the kinds of practice situations in which they were working were variable (5 in a multimodality practice, 1 in a sole practice, and 2 in a practice described as "other"). Number of days per week in practice varied from 1 to 5, and number of clients seen per week varied from 1 to 15.

Results part 1 of survey

Calculation of Cronbach's α coefficient indicated there was internal consistency in all nine dimensions ($\alpha > 0.7$). Mean scores for the nine dimensions of clinical practice were as follows: Interpersonal Skills (4.6 ± 1.0); Confidence/Coping Skills 4.8 ± 1.1); Professional Networks 4.6 (± 1.4); Professional Practice Management (3.8 ± 1.2); Professional Ethics (5.3 ± 0.9); Professional Patient Management (4.6 ± 1.1); Prevention (4.7 ± 0.7); Holistic Care (4.8 ± 1.0), and Self-Directed Learning (4.7 ± 0.9).

Results part 2 of survey

Table 3 outlines the qualitative findings and themes arising from thematic analysis of survey responses. Key themes included the following: practice set-up and ongoing challenges; positive aspects to clinical practice; CM degree preparation for practice and areas for degree improvement; previous experience; and the desire for help from the CM profession, including mentoring.

Key challenges in setting up a practice and ongoing challenges included: how and where to set up a business; marketing their practice; perceived insufficiency in business skills; lack of money; confidence levels; and difficulty attracting new clients. When asked about the challenges in setting up a practice, 1 respondent asked:

> *Knowing what to do, what order, how much money is involved and paper to fill out, and who supports you in making correct business decisions?*

In describing their experience of ongoing challenges in clinical practice, another respondent said:

> *I'm finding it difficult to attract new patients to the clinic.*

Positive aspects of clinical practice were largely agreed upon and included: being able to work their own hours; interacting with clients; feeling as if they were helping people; and seeing the results of CM.

For example, 1 participant reported that she/he:

> *Enjoys helping people and seeing the wonderful results of Chinese medicine.*

While only half of the respondents felt that their CM degree prepared them adequately for clinical practice, interestingly most participants felt their CM degree gave them a solid base from which to acquire further learning. Participants reported a desire for increased clinical experience and observation, business skills, counseling, and communication skills within their degree program. With regard to how well their degree prepared them for clinical practice, 1 respondent answered:

> *I feel it gave me the necessary skills to go on and further develop with clinical experience and possibly future study. However, I feel there could have been more emphasis placed on clinical practice and that this aspect, had it been better developed, could have left me feeling more confident to take on the challenges of starting a practice.*

In response to the question about areas in which their degree could be improved, one participant suggested the following:

> *Clinical studies with real practitioners in real settings to learn about how they conduct their business and what business tools are essential for them.*

While respondents reported a variety of other life and employment experiences that contributed toward their practice of CM, there was considerable agreement that these experiences contributed toward their interpersonal and business skills. Half of the respondents indicated that they had received help from the profession in their transition to clinical practice, while the other half reported that they would like more help from the profession in the form of an opportunity to have a mentor. Responses included the following:

> *I have had a mentor, which has been good but it would be good if everyone had one;* and, *[It] appears that the demands on the profession are continually increasing (i.e.,*

Table 2. Baseline Characteristics

		No.
Sex	Female	9
	Male	3
Institution graduated from	Victoria University	5
	Southern School of Natural Therapies	4
	RMIT University	2
	Endeavour College	1
Length of CM course	4 years	9
	5 years	3
Previous experience in health care industry	Yes	2
	No	10
Previous experience running a small business	Yes	3
	No	9

CM, Chinese medicine; RMIT, Royal Melbourne Institute of Technology.

from CMRB [Chinese Medicine Registration Board]), *but we receive no valuable assistance from either groups representing the industry, or others.*

In answer to the specific question of whether they would like a mentor, responses included:

I think a mentor would be good; *I would greatly appreciate a mentor;* and *I would love to have a mentor.*

One (1) participant reported that she/he experienced no challenges in the transition to clinical practice after graduation, and attributed it to being organized, managing their time, and having help from their family and friends. However, this positive experience was not expressed by the rest of the participants, who, overall, reported being overwhelmed and previously unaware of how much work would be required in establishing and maintaining a clinical practice after graduation. For example, 1 respondent said:

It's been terrifying! Still feel completely overwhelmed by it all.

Another stated:

It was hard and felt that I was flying by the seat of my pants. Business structure and marketing were really hard and still are. But it seems to be put on the back burner because there is just no time to find out where or how do I go about fixing it.

However, the majority of the participants were engaged in clinical practice, and reported positive aspects to clinical practice. As one respondent wrote:

Obviously after only 5 months practicing after graduation, I still have much to learn and experience. Though I do feel some trepidation, I do believe I can be of benefit to others and that will drive me.

Discussion

This is the first study to investigate perceptions of confidence and the transition to clinical practice in CM graduates. Caution should be taken in interpreting the results of Part 1 of the survey, as the sample size was too small to be generalizable to a wider population. However, the results of Part 2, the qualitative analysis, are more useful since smaller sample sizes are acceptable where a study population is relatively homogenous, as this one was. As such, these findings contribute to the overall growing literature about the transition from student to clinical practitioner in the health care industry.[3,13,20–25]

The findings from the qualitative section support results from the previous study[17] and studies in final-year students and graduates in other fields of health care where issues were raised that related to confidence in setting up and managing their clinical practice.[26,27] It is possible that in a further 12 months time, perceptions about confidence and how well their degree course had prepared them for clinical practice may alter. A study of occupational therapy students and graduates found that levels of preparedness for practice and comfort with their clinical skills were initially low, but then increased after 6 months to 2 years of clinical practice.[28]

Education

A theme common to this survey and the previous survey is the desire for increased clinical exposure during their education and assistance in the transition from student to professional practitioner. Since most CM courses in Australia already incorporate a significant amount of clinical practice into curricula, the theme of wanting increased clinical exposure is somewhat curious. What this may be pointing to, based on one of the author's experience in coordinating undergraduate CM programs, is a desire for an increased volume of patients seen in clinical practical units. One of the difficulties faced in student clinics can be procuring a steady and high volume of patients. Only some CM courses incorporate a clinical internship in a CM hospital in China as part of their clinical training. Such opportunities afford students the opportunity to observe and, to a limited degree participate in, a high volume of patient consultations. Anecdotally, one of the authors has found that students have reported increased confidence in their clinical skills following completion of study trips to CM hospitals in China. However, the style of learning in such hospitals for students is typically a more "passive" style of learning where the students often simply observe a senior doctor's treatment, participating in the diagnosis and perhaps treatment formulation to a varying extent, depending on the doctor. Some Chinese hospitals now do not allow students to needle patients until they have completed their degree, for example. This is contrasted to the more "active" style of learning in the final year of CM curricula in Australia where students are put in the "driver's seat," taking responsibility for the CM examination including diagnosis and treatment, under supervision.

These expressed desires for increased clinical exposure and assistance in transition into the profession are consistent with findings from other areas of health care and suggests the need for changes to CM courses and for more formal support from the profession.[1,14] More research is needed in order to determine the optimum curriculum for learning CM practice.

Due to acknowledgement of the need for continuing education in assisting the transition from new graduate to professional,[29,30] formal transitional support programs in health care professions such as medicine, nursing, and occupational therapy are becoming established.[2,3,31–35] Despite some discussion by individuals within the CM community, no known formal support programs such as formal mentoring programs exist for students graduating from Australian CM courses.

Many of the requests for improvement to educational courses from students and new graduates in the clinical health care fields may be seen to be addressing the issue of an "informal" or "hidden" curricula.[25,36,37] Changes such as the United Kingdom implementation of the postgraduate Foundation Curriculum Program[1] and the Australian Curriculum Framework for Junior Doctors[38] have attempted to provide more formal support for the transition to professional life in biomedicine. Despite these changes, newly qualified doctors still reported feeling burdened and fearful about their new responsibilities, dealing with uncertainty, working in multidisciplinary teams, feeling unsupported, and inadequacy (particularly around death and dying patients).[1] Previous clinical experience was found to improve the experience of transitioning into the clinical setting, as was mentoring from senior doctors. Over time, feelings of being well prepared and positive experiences with respect to transition increased. Brennan and colleagues[1] concluded that

Table 3. Part 2 Qualitative Themes

Q./theme	*Total no. of responses*	*Response*	*No. of respondents*
1. Not practicing CM & why	4	No	4
		Why: traveling or living overseas	4
2. Other employment	9	Yes	7
		No	2
3. Challenges in setting up a practice	10	No	1
		Yes	9
		How & where to set up a business	4
		Marketing	3
		Business plan	1
		Financial/money	4
		Confidence	3
		Establishing interprofessional relationships	1
		Lack of support	1
		Feeling rejection	1
		Finding affordable rental space	1
		Suitable space for CM practice	1
		Running a business	1
		Counseling skills	1
		Attracting clients	2
		Professional isolation	1
		Amount of paperwork	1
4. Ongoing challenges	8	Desire for results	1
		Marketing	3
		Attracting new clients	4
		Running a business/skills	2
		Money	2
		Confidence	2
		Professional isolation	1
		Counseling skills	1
		Difficult cases	1
		Pricing decisions	1
		fFnding suppliers	1
5. Positive aspects to clinical practice	8	Own hours	3
		Working for myself	1
		Interacting with clients	3
		Feel helping people	4
		Seeing "wonderful" results	5
		Ongoing learning	1
		Working with other professionals	1
		Challenge of client's condition	1
6. CM degree prepared graduate for clinical practice	11	Yes	
		Pattern differentiation & treatment	1
		Provided base for further learning	5
		Confidence	1
		No	
		More observations	2
		Not enough clinical experience	4
		More small business skills	4
		Learn from experienced doctors	1
		Lack of communication skills	2
		Need counseling skills	2
		Lack of confidence	1
		Musculoskeletal conditions	1
7. CM degree –areas for improvement	10	More clinical experience	4
		[1-on-1 learning in real clinic environment]	3
		Business skills	5
		Mentor program after graduation	1
		Counseling skills	2
		Experienced CM lecturers	1
		Musculoskeletal	1
		Complex cases	1
		Gynecology	1
		Not enough time	1
		Building confidence	1

(*continued*)

Table 3. (Continued)

Q./theme	*Total no. of responses*	*Response*	*No. of respondents*
8. Previous experience	10	No	2
		Yes	8
		Hospitality	1
		Martial arts	1
		Administration	1
		Small business	1
		Mature age	1
		Counseling course	1
		Certificate in small business	1
		Carer (mental illness)	1
		Maternity ward	1
		Corporate	1
		Volunteer CM clinic	1
		Teaching	1
		Massage	1
		Helped interpersonal/communication skills	7
		Business skills	4
		Clinical setting	1
9. Has had help from the CM profession	10	No	5
		Yes	5
		Lecturer	2
		CMRBV	1
		AACMA	1
		Mentor	2
		Myself	1
		Friends, peers, family	1
10. Mentoring	10	No, do not have a mentor	6
		Yes, have a mentor	4
		Would like to have a mentor	5
		Mentor not always available	1
		Like regular meetings	2
		Once a month	1
		Able to phone	1
		Contact as needed	3
		To discuss cases	4
		To learn business skills	1
		One on one	1
		Work part-time	1
		Negative mentor experience	1
		No negative aspects to mentoring experience	1
		No time	1
11. Anything else	9	Feel confident	1
		Family help in running small business	1
		University gave skills to research—valuable	1
		Much to learn & experience	1
		Believe can help others	1
		Feel some trepidation	1
		Terrified & overwhelmed	1
		Lack of professional support & employment	1
		Lack of promotion of profession	1
		A lot to do after graduation	1
		Mentor to new graduates essential	2
		Challenging	1
		Hard	1
		Business & marketing hard	1
		No time	1
		Apprentice situation valuable	1
		Confidence from other experiences	1

CM, Chinese medicine; AACMA Australian Acupuncture and Chinese Medicine Association; CMRBV, Chinese Medicine Registration Board of Victoria.

clinical experience prior to entering the workplace, including meaningful contact with patients and the opportunity for reflection and integration of experiences, will further support new doctors transitioning to practice.

In particular, results from this study and the authors' previous study[17] indicate that final-year CM students and graduates would like more education with respect to business establishment and management skills. This reflects findings from the field of chiropractic, which is similar to CM in that new graduates often must seek out practice possibilities and establish their own small business: Henson and colleagues[39] found that new graduates in chiropractic were in need of significantly more business and practice management skills. The issue of success in establishing and maintaining a clinical practice in CM is a significant one, as there are no known reliable data on CM degree program graduates' rate of practice. Further research must also be done in this area.

Mentoring

The desire for mentoring is also an important issue emerging from this study and the authors' previous study.[17] A mentoring program may be a way for new graduates to develop experience in the everyday running of a clinic, gain exposure to treatment techniques in practice, and have someone with whom they can discuss difficult and complex cases. With the relatively recent emphasis on development of professional attributes in many professions by course-accrediting bodies and universities, mentoring programs may be a way to further consolidate these in new graduates as well within education programs.[40–43]

Within the field of CM, there has been discussion on the benefits of supporting new graduates in practice.[44–47] Anecdotally, some mentoring appears to occur informally within the profession in Australia; however, as 1 participant in this survey discussed, the experience is not always a positive one. With increasing formalization of CM in Australia marked in particular by the introduction of statutory regulation in the state of Victoria in 2000 and the impending regulation of the profession nationally in 2010, development of more formal mentoring programs would not be inconsistent. In nursing, the role of regulatory bodies in the transition from student to professional has been argued by some as an important link to competent practice and protection of the public.[48] One of the requirements of registration with the future Chinese Medicine Registration Board of Australia will be completion of mandatory continuing professional development. It is suggested that this could include formal mentoring activities provided by professional associations.

Retention of graduates

Unlike colleagues in China who practice predominantly in hospitals, the majority of CM clinical practice in Australia is carried out in privately operated clinics. Recent graduates of CM in Hong Kong (who are largely employed in the private sector) reported feeling disappointed with the lack of employment and postgraduate training opportunities, and as a result were considering leaving the profession.[49] The results of the current study, albeit a study of small sample size, indicated that half of the new graduates in Australia who responded to the survey also did not feel supported by the profession upon graduating. Whether this contributes to participants' level of confidence in clinical practice is unclear. However, it is incumbent on the CM profession in Australia to nurture new entrants to the profession. With the advent of national statutory regulation, it is important for the development of the profession that professional associations representing CM practitioners work more closely with educational institutions, health care providers, and regulators to support professional development of students and new graduates, as has been done in other health care professions.[35,50–52]

Issues in transition

The findings of studies within the biomedical literature may inform CM educators and the profession more broadly on the issues involved in transition into practice. Issues that arose for new doctors, similar to other studies, include challenges related to increased responsibility, workload and hours, professional relationships, and wanting more preparation in working independently and with practical clinical skills.[37] Again, the importance of gradual and increasing exposure to patients and clinical practice was emphasized by participants.

Other studies that may inform our understanding of the transition to clinical practice emphasize the importance of clinical communication skills,[53] the culture of the learning environment,[54] and preparation for interdisciplinary practice.[55] Key findings from the field of nursing also acknowledge the challenges of transition into clinical practice, confirming the need to provide role models and support in evidence-based practice and holistic care, and recognize the need for action in order to improve retention rates of new graduates.[20,56] This is why it is important for us to investigate the experiences of CM graduates entering the CM workforce.

Study limitations

As mentioned previously, the small sample size markedly limits the generalizability of the findings of the first part of the survey. In addition, although self-reporting is now accepted practice in medical educational and practice research, issues of self-selection bias and self-reporting must still be acknowledged. With respect to Part 2 of the study, a small sample size under such conditions may be adequate to reach data saturation on major themes elucidated.[19] This study only examined the experiences of graduates in their first year of clinical practice. It is possible that with more time, confidence in the various aspects of clinical practice may be greater. Transition does not end with the first year of practice.

Conclusions

This study and the authors' previous study are the first attempts within the field of CM in Australia to investigate the perceptions of preparedness and confidence in various aspects of clinical practice. Key findings of this study in CM graduates included a desire for greater clinical experience, support in establishing and maintaining their business and interpersonal skills, and an interest in mentoring. These studies, along with a growing body of literature within other

health care professions, strongly indicate the need for CM educators and professional associations representing CM practitioners to pay attention to the issues involved in transition into clinical practice. Successful transition into clinical practice is vital to ensure an adequate workforce in the future. More research is needed to determine employment figures and projected demand.

CM is a developing profession in Australia. It is hoped that the findings of this research contribute to the discussion of one of the most important issues that impact the potential development of CM in Australia, that of the transition of new graduates.

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(*Appendix follows* →)

Appendix 1. Perceptions of Confidence in Practice Survey

Part 1

Please choose one response from the six (6) possible responses (check the relevant response) for the following statement as it relates to each topic below:

Possible responses:
O very inadequately O inadequately O somewhat inadequately O somewhat adequately O adequately O very adequately

"At this point in time, I feel confident to ....."

1. Evaluate the impact of lifestyle factors on illness
2. Cope with stress caused by my work
3. Recognize my own clinical limitations
4. Carry out appropriate herbal preparation techniques
5. Discuss health risk behaviors with patients
6. Cope with my own emotions in clinical situations
7. Seek out help with novel clinical situations
8. Carry out proper client receipting practices
9. Discuss relevant preventive health strategies with patients
10. Take responsibility for my own learning
11. Carry out appropriate acupuncture-related therapeutic techniques (e.g., acupuncture, moxibustion, cupping, *gua sha*)
12. Prescribe herbal prescriptions on the basis of a Chinese medicine syndrome diagnosis
13. Take a medical history with an initial consultation
14. Continually evaluate my own performance
15. Understand the interaction of social factors with disease/illness
16. Appreciate the importance of a patient's cultural/ethnic background
17. Balance my work and personal life
18. Encourage patients to improve their health habits
19. Apply an understanding of basic and biomedical sciences to clinical conditions
20. Deal confidently with "difficult" patients
21. Recognize and appreciate the impact of individual circumstances (such as poverty and unemployment) on illness
22. Initiate and/or maintain membership with a professional association representing Chinese medicine practitioners
23. Evaluate my educational experience
24. Consider the influence that a patient's religion may have on his/her treatment regimen
25. Carry out a Chinese medicine diagnosis using the four traditional methods of diagnosis (inspection, inquiry, auscultation/olfaction, palpation)
26. Remain calm in difficult situations
27. Invest time in developing my skills
28. Appreciate the importance of group dynamics when working within a team environment
29. Select herbal ingredients for inclusion in herbal prescriptions or select proprietary forms of herbal medicines (patent medicines) on the basis of their cost, risks, and benefits
30. Feel competent to counsel a distraught patient
31. Record all clinical data (case records) comprehensively and systematically
32. Use opportunities to encourage patients to adopt healthier lifestyles
33. Adhere to State and Commonwealth regulatory requirements governing Chinese medicine practice (e.g., infection control guidelines, adverse event reporting, standards for the uniform scheduling of drugs and poisons [SUSDP])
34. Provide education to patients and their families
35. Treat the patient holistically, that is, as a whole person
36. Set up a clinical practice (e.g., find a location, negotiate rental/business terms, purchase stock, set up consulting room)
37. Approach other practitioners confidently for help in interpreting cases and/or treatment strategies
38. Identify my own continuing professional educational needs
39. Keep up to date with Chinese medicine knowledge through a range of methods
40. Co-ordinate a comprehensive patient management plan with other allied health professionals (e.g., physiotherapists)
41. Refer my patients to their general practitioner when necessary
42. Conduct treatments in such a way that respects the patient's rights and privacy, and ensure ongoing informed consent
43. Set up and/or continue to operate a small business (i.e., practice regular accounting & tax, budgeting, stock control)
44. Market my Chinese medicine services and attract new patients
45. Establish and maintain a professional relationship with patients
46. Communicate a Chinese medicine treatment strategy clearly to the patient
47. Advise a patient that I cannot treat them
48. Follow and continually update a relevant business plan
49. Adhere to a Code of Ethics as set down by my professional association and/or regulatory body (e.g., Chinese medicine registration board of Victoria)
50. Charge a reasonable and justifiable amount commensurate with the service provided and/or product value

Part 2. Extended Answer Questions

1. Are you practicing Chinese medicine? Yes No (please circle)

   If Yes, are you practicing part-time/full-time/casual/other? Please describe.

(*Appendix continued*)

Appendix. (Continued)

What kind of practice describes your work practice: Are you working as a sole practitioner or in a multimodality practice or in a clinic with other Chinese medicine practitioners? Please describe.
How many days per week are you practicing?
How many clients are you seeing on average per week?

If No, why are you *not* practicing Chinese medicine? Do you intend to practice Chinese medicine in the future and if so, in what capacity (part-time, full-time) and what kind of practice (as a sole practitioner, in a multimodality practice, or in a practice with other Chinese medicine practitioners)?

2. Do you have employment or another source of income other than CM clinical practice? Please describe.
3. What challenges did you face in setting up your clinical practice?
4. What ongoing challenges are you experiencing in clinical practice?
5. What are some positive aspects to CM clinical practice that you are experiencing?
6. On reflection, do you feel your Chinese medicine degree prepared you adequately for clinical practice? Yes No (please circle) If yes, please explain how. If not, please explain why not.
7. Are there areas where you feel your Chinese medicine degree could have prepared you better? (i.e., clinical studies, theoretical knowledge, business skills, etc.)
8. Do you feel that any previous clinical practice or experience in another field is helping your practice of Chinese medicine? If so, what was this and how has this helped you?
9. Have you had any help from within the profession in starting and running your practice? If Yes, from whom? (i.e., professional association, CMRBV, mentor, etc?) If not, what help would you have liked/like now? Please describe.
10. Do you have a mentoring relationship? Please describe the nature of this (do not identify your mentor). If Yes, what benefits do you derive from it? Are there any negative aspects?And if not, would you like a mentor? What kind of mentoring situation or relationship would be ideal for you?
11. Do you have anything else you would like to add regarding your experience after graduation and of your transition to clinical practice?

CMRBV, Chinese Medicine Registration Board of Victoria.

Appendix 6: Medicine and science must oppose intolerance and censorship

Medicine and science must oppose intolerance and censorship

Friends of Science in Medicine should avoid threatening their own values

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Science has always been — and should be — a battleground for contending views on what is true. Because of the close connection between knowledge and power, however, the risk is always present that those who command the dominant theories or ideologies will rely on their positions of influence to overcome those who oppose them. It is important that those who treasure tolerance and the value of open, unfettered discourse remain sensitive to these risks and — even when they personally disagree — to protect and foster the expression of contrary viewpoints.

When the nature of science and medicine is at stake, the importance of this task is especially pressing. We believe that the views promoted in a commissioned editorial in the Journal, by the Friends of Science in Medicine (FSM), exceed the boundaries of reasoned debate and risk compromising the values that FSM claims to support.[1]

In its own words, the key objective of FSM is "countering the growth of pseudoscience in medicine", where true science is defined as a set of practices characterised by "an experimental, evidence-based approach". The strategy of the group — which deliberately and forcefully relies on the unquestioned eminence of its members — is to apply pressure on governments and educational institutions to withdraw or prohibit funding for health practices referred to in a general sense as "complementary medicines". The organisation models itself on similar groups in the United States and the United Kingdom and proudly refers to the success of these groups in having had funding removed from certain alternative medicine courses.[2] It is clear that FSM aims to emulate this success in Australia through a campaign to influence public opinion and apply pressure on government and educational institutions.

We do not write to advocate complementary medicines. Indeed, two of us are physicians who practise exclusively in the field of Western medicine and are actively engaged in "conventional" laboratory and clinical research. Furthermore, we accept that there are serious and important issues to be considered regarding claims about, and risks posed by, many "complementary" health practices, and regarding the nature and status of evidence in medicine. As even the most vigorous supporters of complementary medicines accept, the field has been beset by excessive and fraudulent claims, which in many cases have misled — and, in some cases, posed direct risks to — vulnerable individuals.

We feel that the appropriate response to these problems is not to seek to suppress all approaches to health care which we cannot understand or with which we do not agree. Rather, it should be to establish a system of safeguards that minimise risk, while continuing to protect the rights of consumers to choose their own health care practices. Such safeguards should include legal, professional and conceptual criteria and target specific rogue practices while protecting and regulating others. We believe that any approach other than this would run the risk of threatening the core values and practices of science and medicine.

What are the core values and practices of science? FSM claims that what distinguishes the "scientific" nature of medicine is its reliance on evidence, and that all other approaches to health care are merely "pseudoscience". We believe that this is wrong because it is at variance with the key insights of much of twentieth-century philosophy of science, which largely sought to understand the nature and meaning of science. There are many ways of defining what characterises science, but reliance on evidence is not one of them, because all systems of knowledge and belief make claims to interpretation of the evidence.[3,4] Indeed, it is well known that, in Galileo's day, Aristotelian physics commanded a much stronger empirical basis than did the esoteric theoretical idealisations of the Galilean system, not to mention Einstein's theories of relativity in the years after they were proposed.[5] Nor indeed is science merely a method, as it incorporates — and promotes — a wide array of methods and approaches.

What characterises the practices of science and medicine — as we understand and value them — is an openness to contrary perspectives and points of view, a belief in the merits of critical inquiry, a commitment to open and free dialogue to settle disputes and disagreements, and a renunciation of the use of polemic and force to suppress contrary viewpoints. We do not disagree with trenchant critiques of bodies of thought that cannot be substantiated by argument or data. What concerns us is a politicised process to apply pressure on governments and educational institutions to act in accordance with the views or convictions of one particular group.

In addition to this ethical point is a philosophical one. A key premise of many scientists and practitioners is that Western medicine is evidence-based whereas complementary medicine is not. There are several problems with this premise. First, as discussed above, is that it is mistaken to identify science with evidence. Second, the claim is based neither on evidence nor on a clear differentiation of the variety of forms of complementary medicines. While there may be little, if any, data to support more marginal, or fringe, forms of complementary medicines, there is an extensive evidence base relating to other complementary therapies, including Western herbal products, nutritional supplements, traditional Chinese medicine, and certain non-drug practices, such as meditation.[6,7]

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The third problem is that the concept of evidence-based medicine, which was once so popular, is highly contested and debated within Western medicine itself.[8] This is because the kind of evidence that is available to clinicians is never more than limited and partial, and that the clinical art always requires different kinds of inputs that set it apart from formal scientific deliberation. As has become widely recognised, clinical judgement draws together a range of skills and theoretical considerations. These include rigorous history-taking and examination, respectful dialogue with patients and relatives to determine the goals of treatment, and assessment of special biological, psychological or cultural conditions, risks, costs and other factors.[9] Evidence from laboratory, epidemiological, clinical research and clinical trial studies cannot solely generate or determine the clinical decisions. These high-level data deal only with populations and probabilities and can, therefore, provide no more than hypotheses to be tested. It is the job of the clinician to convert these data into judgements relating to individual patients. This process of clinical decision making involves forms of judgement and kinds of knowledge that differ qualitatively from those which motivate and direct scientists.[10] Medicine is a complex craft, and a large part of its richness and success depends on its ability to draw on a wide array of practices and forms of knowledge. Despite the undoubted wealth of information that laboratory and population studies provide, from the point of view of the clinician, a great deal of uncertainty remains, at the conceptual and methodological levels. We cannot afford to be overconfident about our own approaches or dismissive of those of others.

This does not mean that there is not a need for a vigorous and forceful debate about systems of medicine and individual practices, and it in no way detracts from the urgent need to protect vulnerable members of the community from those who seek to exploit them. Nor does this mean that we should not continuously re-examine the cultural role that universities play in society and their function is fostering critical learning, creativity and the pursuit of knowledge. These are important questions as they reflect ideas about the degree to which universities should promote or restrict access to different epistemologies and about where, and how, different disciplines and techniques should be taught and learnt. From whatever side one speaks, however, whether from the point of view of medicine or its interlocutors, the institutions of science and health care are too important to be subject to political campaigns seeking to enforce their own preferences regarding what they consider to be true science or how they believe clinical practice should be conducted.

> “What concerns us is a politicised process to apply pressure on governments and educational institutions to act in accordance with the views or convictions of one particular group”

It is important that those who seek to be friends of science do not inadvertently become its enemies. We call on the members of FSM to revise their tactics and instead support open, respectful dialogue in the great spirit and tradition of science itself.

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Appendix 7: Conceptualisation of external pathogens in Chinese medicine


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Twenty years
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Conceptualisation of External Pathogens in Chinese Medicine

Amber Moore

Abstract
Questions often arise concerning our understanding of disease and in particular, the terminology we use. Indeed, in relation to the body, we may consider that there is no true external or internal state. In this article, I will look at how Chinese medicine (CM) conceptualises pathogens, how this might contrast with concepts from Western thinking, and what this might mean for CM as a whole, and perhaps other ways of thinking. Finally, I shall begin to explore the question of whether this inquiry might support the CM view of the body and health, or vice versa, and what the implications of this might be – for how we view the world, how we live, and how we practise.

Introduction
Chinese medicine practitioners accept that the concepts of Wind, Damp, Heat, Dryness, and Cold, can be understood as pathogens. They may arise internally, but are also often considered to originate outside the body. The history of the conceptualisation of pathogens and disease in CM is a detailed and evolving one that includes clinical, political, social and practical factors. When one considers the Chinese medical theory of disease as being caused by an imbalance between external and internal factors that act simultaneously within, outside and through the body, the consideration emerges that the line between what is internal and external is blurred. This contrasts with the Western view of pathogens physically invading the interior of the body. Similarly, ideas in theoretical physics have questioned the composition of matter to reveal previously unseen particles and forces. It is these unseen forces, rather than the particles that they act upon that appear to control the composition of matter.

Pathogens in CM and WM: is disease a separator or a consequence of imbalance?
External pathogenic influences in CM are defined in the *Nan Jing* as the 'six evils' (Kaptchuk, p.146), and are known as 'evil *qi*' (*xie qi*), or 'six excesses' (Maciocia, p.132). As external influences, they are often differentiated from internal causes of disease by being described as invading the body, entering through the pores and orifices of the nose and the mouth. External pathogenic influences are described in the *Nan Jing* as disrupting the body, and once in the body may be transmitted between the organs (Mangelsdorf, p.30).

The external pathogens are also found to occur in nature, and are considered to be closely related to climatic conditions. Cai (2002) explains that:

'The growth of all living things depends on the existence of these six *qi*. They should not be harmful, rather they should be helpful to human beings. Human existence relies on air, water, and food which undergoes sequacious stages of generation, growth, harvest and storage. Human beings have learned the laws of nature through the changing features of the seasons and have adapted themselves to these changes. Thus the six *qi* normally will not cause diseases.' (p.253).

The *Su Wen* explains Wind as 'the origin of the one hundred diseases', and one whole section was devoted to a discussion of it (Unschuld, 1988, p.183). While Wind is connected to a number of the other pathogens through its transporting nature, all of the pathogens have their own corresponding features and are considered to correspond to the various seasons, for example Cold is understood to predominate in winter and reflects in the body its behaviour in nature (Kaptchuk, p.152).

In CM it may also be seen that Wind, Damp, Heat, Fire, Dryness, and Cold, occur naturally within the body in either form or function. For example, Heat is an essential component in our understanding of the warming and moving function of *yang qi*, while some amount of Cold in the form of *yin* is required to balance that Heat. Likewise, for example, a certain amount of Damp is required by the Spleen in order to aid its transformative function, and the Liver *qi* inherently embodies the aspect of Wind in its distributive function. Pathogenic *qi* may be differentiated from normal *qi* in that it interferes with the normal physiological functioning of the body (Buck, 2008). In this way, we can see that the pathogenic state can arise when one of these forms or functions may become out of balance in its relatively natural state within the body (Maciocia, 1998, p.127). The concepts of disease and health are therefore seen in a relative state (Cai, 2002, p.251). In normal conditions, the body maintains its balance within itself and with relation to the environment. In the case of pathogenic factors, it is sometimes argued that when the body's normal *qi* becomes relatively weak when compared to the environment or season we consider disease to manifest (Maciocia, 1998, p.132). This concept of balance, or homoeostasis, is the familiar and fundamental Chinese understanding of the individual body as an energetic system, operating not only within ever wider systems from our environment in the home to the wider universe as a whole, but can also be seen within the body, to the systemic, organ, cellular and subcellular levels.

Reflected through many clinical constructs, such as *yin yang*

theory, Five Element theory, and *Bian Zhen Lun Zhi* pattern differentiation, this conceptual base was extended further by the explanation of the Chinese medical body as a microcosm that represents the macrocosm of the universe. This idea of disharmony as being the natural state out of balance, and treatment as the process of returning the dynamic balance between the elemental states, necessary for life to thrive, is a key construct of Chinese medical theory.

Here we see a basic contrast to the dominant Western understanding of many diseases, in which pathogens are seen as separate entities existing outside of the body that may penetrate and invade the body (Illich, 1990). Specific diseases may be caused by a variety of external agents such as viruses, bacteria, and chemical toxins. From this microbiological framework, there are many agents already living within and with us, such as Escherichia coli bacteria and Staphylococcus epidermidis on the skin and in the gut – both of which can become pathogenic when located outside their usual environment, given the right conditions. Disease is seen in terms of 'attacker' and 'victim', the 'victim' being separated from the disease by the medical framework (Foucault, 1989). The external agent may be understood as manifesting within the individual body for its own survival. However, it is well worth noting that more and more Western medical physicians are resonating with the holistic nature of the body, and the existence of systems and complex processes in health and disease (Mennin, 2010; Suchman, 2006; Miles, 2009).

With the observation of epidemics in China (Unschuld, 1988, p.109) the understanding of disease as an external invader became historically represented in CM also, as seen within the Shang Han Lun (Mitchell, Wiseman and Feng). Political in nature, external forces are seen as threatening to the internal validity of a balanced system, and must be fought against, and then be expelled when their relative state in the system turns to excess (Buck, 2008; Maciocia, pp.315-19). So it is that, 'pathogenic *qi* cannot invade the body if antipathogenic *qi* remains strong', and the definition of external pathogenic factors in CM now also came to include, 'the idea of bacteria, viruses, and physical and chemical factors' (Cai, pp. 251-2).

We can also note the theory of *qi*, (which emerges from the *Su Wen* in the statement, 'I know that the hundred diseases are generated by the *qi*') where *qi*, as a parallel aetiological factor for disease, continues in the Chinese medical understanding of disease (Unschuld, 2003, p.183). We see this in our treatment rationalisations for pathogenic factors, extending along the spectrum of expelling the pathogen (through acupuncture, herbs, cupping) to strengthening the bodies own upright, or normal *qi* (Cai, pp.265-7). Many physicians argue that regulating the body's *qi* is the essential action underlying all treatment principles (Scheid, 2009, seminar notes). Gunter Neeb argues that while external pathogens may enter the body, it is 'when they are trapped inside by the activity of *qi*' that symptoms manifest (Need, p.10). Maciocia (p.134, 293) explains that while the pathogenic factors are important as causes of diseases, and 'have a definite, direct influence on the body and they attack it in a way that corresponds to their nature', what is clinically significant is the pattern manifested by the patient. External pathogens are just a part of the overall clinical model that CM offers.

Interacting with the system of physics

By attempting to describe the world we live in – including the concepts of inside and outside – it may help practitioners and thinkers not only to understand the world we live in and how we sit in it, but also how we understand reality and construct it. When we turn and look to physics, another evolving form of thought and practice, we find that so far nothing in this world is seen to be touching 'physically', which is in contrast to our intuitive sense. Observable and unobservable phenomena are understood through units of matter such as atoms, and fundamental forces such as electro-magnetism. The smaller (higher energy probing of matter) observations become, the more evidence we find that particles previously thought to be fundamental are in fact systems of energy held together by increasingly stronger forces (Serway, Moses and Moyer, 2005, p.108). The *seen* becomes the *unseen*, as what we previously thought to be *form* is discovered to consist of smaller parts which, when they themselves are probed deeper, are seen to be composed of still smaller parts, held together by forces in a state of relative balance. This can be seen in the example of the proton, discovered to contain quarks.

Our understanding of the body which we derive from physics can be further enhanced by the explanation of the flow of heat as a process of energy transferring between physical entities (Knight, Jones and Field, 2010, p.335). According to the 0th law of thermodynamics, heat is transferred from hotter to colder entities – however it can only be described within a single system (http://hyperphysics.phy-astr.gsu.edu/hbase/thermo/heat.html). For example, the food we eat provides us with energy derived from the heat stored within it, and this fuels the expression of the creativity and expansion within our lives.

From here the proposition may then arise that there is no true external and internal – no true separate states of existence. Rather, there are various constantly interacting and embodied living systems. How does this follow? If the universe is composed of ever detailed systems of energy, not just separate pieces of matter that make contact, and these systems exist held together by fundamental energetic forces, the body then is an energetic field, a system composed of ever increasing and decreasing forces. If this is the case, there can be no absolute external or internal state that defines the matter composing our bodies. The lack of ability to define an absolute state of the body means that no line can ultimately be drawn between inside and outside. Instead, the

body becomes an operating system that appears complete, but is constantly interacting within and between other systems and forces, and, gains its definition through such action. Francisco Varela elaborates this in his thesis on functional biology, in which he describes living systems as 'units of interactions' that 'exist in an ambience' and cannot be understood independently from the wider ambience which they interact with[1]. Among many other Western philosophies, complexity and systems theories reflect these ideas. This can be seen too in Western medical physiology and endocrinology. This harmonises with acupuncture channel theory, in which the body is an organisation of, and regulated by, *qi*, as form of 'unseen' energy, or force.

In the diseased state, arguably understood in CM as an imbalance, we may consider the alternative idea that there is no true 'entry' of pathogens from outside, but rather the appearance of an imbalance within the body system, which has been influenced by factors present in a wider system. Cai (2002) explains, 'Chinese medicine holds that normally a state of relative equilibrium exists, on the one hand, among the internal organs and tissues, and on the other, between the environment and the human body. The equilibrium is not static; it is in a state of constant self-adjustment. In this way, the normal physiological activities of the body are ensured. If the body is unable to adjust to changed conditions, then this dynamic balance is lost and disorders will occur.' (p.251).

So for example, when the wind picks up in autumn we may see the body's increased susceptibility to Wind-related states, such as sneezing and itching. The external nature of reality interacts with the state of the body, and vice versa. According to this idea, an entity, which appears complete within itself, is interacting with, and is relatively defined by, the balance of energetic systems composing the matter and conditions surrounding and within itself. However, according to theory and observation from physics, these do not touch, and while they cannot be quantified together, they cannot exist independently of each other either. So it is that an environmental influence, such as too much greasy food, or a cold bench, may influence conditions within us through the constant interaction between related systems of force. In line with acupuncture theory, form is composed of the strength of the connection in the spaces between things.

Extending this to the nature of the substance of life, self-help and the profession

That the boundaries seem blurred has implications not only for how we understand health and wellbeing in individuals, but may also help us understand how we might rethink the ways in which we live. This can be highlighted here in a number of ways.

Firstly, let us look to the Heart Governor in CM. The Heart in CM may be seen as having, in part the function of governing the transformation of our *yang* into *yin*. By circulating the Blood, the Heart uses ethereal *yang* energy to direct the more *yin* substance of the Blood. Its role in ovulation enables the condensed transformation of *yang* into *yin*, the release of each ovum representing the focussed *yin* substance that can only realise its potential with the warmth and movement of *yang*. Observable *yin* substance is the result of the harmonious direction of ephemeral *yang qi*. Life, in CM, may be seen as the expression and expansion of our *yang* energy, arising from the *ming men*, into extremely dense *yin* substance – the sperm and the egg together creating the embryo. As we live our lives, we utilise this dense energy, in our actions and choices, expressing it through the expansion of *yin* into *yang*, widening out our impact and creativity in the world. The nature of the food we eat, the air we breathe, and the activities we engage in, either contribute towards or further separate the energetic expression of our life fire, or life force[2]. Death could be seen as the ultimate separation of *yin* and *yang* due to too much expansion of *yang* (and/or too much contraction of *yin*). All creation within life is the expression of this *yang*-like expansion, with the focus of desire and then intention resulting in an idea or thought becoming an observable form or substance, such as carpentering a table or baking a cake. This underlies the common idea that beliefs and emotions can turn into illness. This can be seen in procreation, the ultimate expansion of creation in which *yang* desire is expressed as *yin* potential – the creation of a new form, that itself transforms this energy back into *yang* through living in this world[3].

Secondly, this may be why it is so powerful to look inside oneself and change one's life from within. Many traditions and schools of thought reflect this truth, such as Buddhism, Taoism, and CM, where control of one's *qi* and self-reflection are understood as key factors in a state of health and the clinical success of any practitioner. Change arising from thoughts, intention and choice can be seen to be reflected in our external world, such as choosing to build a house and then having the satisfaction of seeing its construction and living more happily within it. This is the external realisation of the internal and then the internal change that is effected through apparently external action. Like *yin* and *yang*, always arising from within the other, and yet always the other. As practitioners, we may realise that by affecting the health of the individual patient we may affect the wellbeing of the environment from which they come, and vice versa. Our ideas of how people get sick, and how to stay well, may be further consolidated from these ideas, or adjust.

Finally, CM may develop in a manner that is true to itself. It can be argued that an integral part of the survival of CM has been an openness and acceptance of other systems, other ways of thinking. For we understand that those systems reflect ourselves,

[1] And likewise the wider ambience cannot be understood separately from the systems which characterise it (1927/80, p.9).
[2] Neeb refers the 'heat-producing oxidation processes that occur at a cellular level in the body', as a process and a product of this (p.6).

[3] Biomedical DNA theory also reflects this fusion, as DNA is seen to contain the instructions for development and expression of life. Also endosymbiotic theory (transfer of DNA from the symbiotic bacteria to true genome of the cell) and mitochondrion (bacteria that have become inseparable with the body and led to complex organisms) contribute to our views of external and internal.

and are a part of the wider system containing countless actual and potential systems. The balance of our own system depends not only on our internal balance, but on the balance of the systems (environmental, familial, cultural, social, economic, political, ideological, etc.) around us. People, knowing where they come from, can then interact in a way that sustains their own system, while learning from those around it. There is a give and take that contributes to the health of the life force of all of the systems involved. This boundary enables no boundary, in the sense that we realise the Chinese medical idea that while we are an individually coherent system, we are a system existing within larger systems, and a system made up of many smaller systems. We cannot, and do not, exist in true isolation. Connection is realising the actual or potential force that may be found within the other also. And separation, an inevitable part of life, is only energetic absorption into the wider system.

Conclusion

When we attempt to conceptualise external pathogens in relation to other ideas, as we have done here, it may contribute to our own understanding of CM. If, as practitioners, we are not consistent within our dialogue and explanation of health and healing, we may not realise the full potential of such a powerful explanatory system. Rooted in assumptions about the world, the terminology we use to describe the body reflects our understanding of it. In translation and practice, it is necessary for us to be diligently self-reflective, for the framework of CM may potentially allow for everything. Nothing can ultimately be rejected, nothing is categorically bad. By practising the deliberate preservation of our *qi*, and reflective interaction with other systems, we not only become more internally consistent, but our creative focus may become more powerfully refined, as expansive *yang* again realises its reflection in *yin* – the effective expression of Chinese medical practice in the world. It is an acknowledgement of the nature of form and balance, composed from within and between us, which may be the strength of CM. It is the coherent expression of this understanding that may strengthen the energy of Chinese medicine as a whole, and perhaps the systems it interacts with. It may be the theory and practice of CM, arguably currently viewed as an external pathogen in the eyes of Western medicine, which may inevitably strengthen the internal validity of the Western medical system as well.

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