The Use of Complementary and Alternative Medicine among Chinese Canadians

by

Marilyn Anne Roth
B.A., University of Waterloo, 2003

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF ARTS

in the Department of Sociology

© Marilyn Anne Roth, 2006
University of Victoria

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.
The Use of Complementary and Alternative Medicine among Chinese Canadians

by

Marilyn Anne Roth

B.A., University of Waterloo, 2003

Supervisory Committee

Dr. Karen M. Kobayashi, (Department of Sociology)
Supervisor

Dr. Andre P. Smith, (Department of Sociology)
Departmental Member

Dr. Cecilia M. Benoit, (Department of Sociology)
Departmental Member

Dr. David C. Y. Lai, (Department of Geography)
External Examiner
Abstract

This research implements a mixed method design to examine complementary and alternative medicine (CAM) use among Chinese Canadians. Using logistic regression to analyze data from the Canadian Community Health Survey, this study explores the relationship between Chinese ethnicity and CAM use. This study also uses narrative accounts from case study interviews with Chinese Canadian CAM users to understand why they use CAM. The quantitative results indicate that Chinese ethnicity and other cultural variables significantly affect respondents’ likelihood of using CAM. The qualitative results reveal four main reasons for CAM use: (1) adherence to traditional understandings of health and illness, (2) views about the effectiveness of Chinese medicine, (3) acceptance of use by family and friends, and (4) access to Chinese medicine practitioners. The findings are integrated and discussed in the context of the study’s theoretical and methodological contributions for the sociological study of CAM use among visible minority groups.
# Table of Contents

Supervisory Committee  
Abstract  
Table of Contents  
List of Tables  
List of Figures  
Acknowledgements  

CHAPTER 1: Introduction  

CHAPTER 2: Purpose, Conceptual Framework, and Literature Review  

2.1 Purpose  
2.2 Conceptual Framework  
2.3 Literature Review  
2.3.1 A Brief Historical Examination of Canada’s Health Care System  
2.3.2 What is Health? Definitions & Viewpoints from Biomedicine & CAM  
2.3.3 Trends in CAM use  
2.3.4 Ethnicity and Health Care Choices: Ethnic Enclave, Institutional Completeness, Social Capital, and Acculturation  
2.3.5 The Effects of Immigrant Status and Ethnicity on CAM Use  
2.3.6 Traditional Chinese Medicine  

CHAPTER 3: Research Design and Methodology  

3.1 Research Questions  
3.2 Research Design  
3.3 Quantitative Methods  
3.3.1 Sampling and Data Collection  
3.3.2 Data Analysis  
3.4 Qualitative Methods  
3.4.1 Sampling and Recruitment  
3.4.2 Data Collection
3.4.3 Data Analysis
3.4.4 Ethics

CHAPTER 4: Quantitative Results
4.1 Sample Characteristics
4.2 CAM Use among All Canadians
4.3 CAM Use among Chinese Canadians
4.4 Interaction Results
   4.4.1 Ethnicity*Time Since Immigration*Gender
   4.4.2 Ethnicity*Census Metropolitan Area*Sense of Belonging to Community
4.5 Discussion of Quantitative Results

CHAPTER 5: Qualitative Findings
5.1 Case Descriptions
5.2 Experience with Western Medicine
5.3 Decision to Use Chinese vs. Western Medicine
5.4 Reasons for CAM Use
   5.4.1 Traditional Understandings of Health and Illness
   5.4.2 Views about the Effectiveness of Chinese Medicine
   5.4.3 Acceptance of Use by Family and Friends
   5.4.4 Access to Chinese Medicine Practitioners

CHAPTER 6: Discussion and Conclusion
6.1 Overview of Quantitative Results
   6.1.1 Limitations
6.2 Overview of Qualitative Findings
6.3 Complementary Nature of Quantitative and Qualitative Findings
6.4 Recommendations and Conclusions

References
Appendix A (Table 1: CAM vs. Biomedicine)
Appendix B (Interview Guide) 132
Appendix C (Participant Consent Form) 137
List of Tables

TABLE 1: CAM vs. Biomedicine 131

TABLE 2: Descriptive Information for CAM use, cultural, socio-demographic, SES, and health variables by All Canadians and Chinese Canadians Only Samples 70

TABLE 3: Odds ratios for CAM use by ethnicity, cultural, socio-demographic, SES, and health status controls 73

TABLE 4: Odds ratios for CAM use for Chinese Canadians by cultural, socio-demographic, SES, and health status controls 76
List of Figures

FIGURE 1: Three-Way Interaction between Ethnicity, Time Since Immigration, and Gender 79

FIGURE 2: Three-Way Interaction between Ethnicity, Sense of Belonging to Community, and Census Metropolitan Area 81
Acknowledgements

I would first like to thank my family and friends for their love and support throughout this entire process. In particular, I would like thank my parents whose utmost confidence in me throughout my entire life has allowed me to attain goals I would have never thought possible. I would also like to recognize and thank my roommate and friend, Theresa Vladicka, whose patience and support throughout the hectic writing process were second to none.

I also wish to thank the staff at the University of British Columbia’s research data centre whose willingness to answer questions and offer suggestions after long hours of data analysis was most kind. I am also grateful to the two research participants whose engaging responses made the interview process most valuable. I would also like to thank Carole Rains and Zoe Chan for their endless assistance. I would also like to express my appreciation to my committee members, Andre Smith and Cecilia Benoit, for their valuable input.

Finally, I am most grateful to my supervisor, mentor, and friend, Dr. Karen Kobayashi. Her direction, encouragement, and support throughout the past two years have made this sometimes daunting experience somehow enjoyable. Her guidance has provided me with invaluable research skills and confidence in my own abilities. I feel very fortunate to have been able to learn from her.
CHAPTER 1: Introduction

Recent studies on health care utilization have reported that an increasing number of Canadians and Americans are using complementary and alternative medicine (CAM) (Bodeker & Kronenberg, 2002; Suzuki, 2004; Eisenberg, Kessler, Foster, Norlock, Calkins, & Delbanco, 1993; Eisenberg, Davis, Ettner, Appel, Wilkey, Van Rompay, and Kessler, 1998). It has been reported that as many as 42% of Americans and at least 15% of Canadians regularly use some type of CAM (Eisenberg et al., 1998; Millar, 1997), and members of visible minority\(^1\) groups like the Chinese, for whom CAM use is prevalent (Mackenzie et al., 2003), often utilize a combination of CAM practitioners and conventional medical doctors, (Pourat, Lubben, Wallace, & Moon, 1999; Mackenzie, Taylor, Bloom, Hufford, & Johnson, 2003). This is not surprising since most CAM practices are rooted in visible minority cultures (e.g. acupuncture is rooted in traditional Chinese medicine, yoga has origins in Ayurvedic medicine, and herbal remedies are rooted in Chinese, Ayurvedic, and other traditional Asian forms of medicine); that is, many such practices are consistent with the traditional customs and beliefs of visible minorities, particularly the foreign-born (Hufford, 2002; Mackenzie et al., 2003).

Canada has welcomed, on average, more than 200,000 new immigrants each year since 1990 (Statistics Canada, 2001), resulting in a changing demographic landscape. Between 1996 and 2001, Canada’s visible minority population grew by 25%, while the total population grew by only 4% (Statistics Canada, 2005). The Mainland Chinese have been the largest incoming group each year since 1998. Including immigrants from Hong

---

\(^1\) In a 2004 Statistics Canada report the government began using the terms *visible minority* and *ethnocultural minority* synonymously, so in the interest of furthering the use of the new expression, *ethnocultural minority*, the terms will be used interchangeably throughout this thesis.
Kong and Taiwan, the Chinese have been the largest group for over ten years (Statistics Canada, 2004).

Some researchers attribute part of the increase in CAM use to this emergent ethnocultural diversity given the roots of CAM practices in visible minority health care traditions (Hufford, 2002; Mackenzie et al., 2003). In addition, cultural and structural barriers exist that affect immigrants’ access to treatment and/or tests through the Canadian health care system (Kobayashi, 2003). Given access issues and the familiarity of CAM practices from their home countries then, it is not surprising that many visible minority immigrants may feel more comfortable and, thus, be more likely to use CAM practices to treat illness and/or maintain their health. Consequently, it is essential that governments address the congruence (or lack thereof) between the services visible minority Canadians need and the services the existing health care system provides.

It is important to consider patients’ “culturally developed world views” in order to understand how they learn and think about their own health (Kakai, Maskarinec, Shumay, Tatsumura, & Tasaki, 2003:851). In the case of CAM use, immigrant status, time since immigration, and ethnicity are important factors in providing insight into the health care treatments people choose (Bair, Gale, Greendale, Sternfeld, Adler, Azari, & Harkey, 2002; Kakai et al., 2003; Hufford, 1995). In turn, recognizing the factors influencing this selection process is important for improving the delivery of care (Pourat et al., 1999). Knowing the types of care people prefer may help to improve the efficiency and effectiveness of the overall system and its ability to provide care by addressing, or at least becoming more sensitive to, certain barriers to access related to cultural traditions and beliefs beyond just language. Indeed, although research indicates that people are shaped
by their culture and ethnicity, which, in turn, influence their actions and decisions (Nagel, 1994), it is important to establish whether these factors continue to influence immigrants after migration and settlement. And, if so, it is important to establish why members of certain largely immigrant groups, such as the Chinese, decide to continue using alternative health practices post-immigration.

An interest in diverse cultures, worldviews, and life experiences forms the basis for my curiosity around what social and cultural factors influence the propensity of Chinese Canadians to use CAM. Additionally, my interest in Chinese culture and medical practices stems from my experience of having spent more than a year living, teaching, and traveling in China. Further, aside from a personal interest in the topic, this research study addresses a much broader social issue: the continuing power imbalances and hierarchical systems that perpetuate inequality by locating CAM as an “othered” set of practices, while simultaneously devaluing the health beliefs of immigrants and visible minorities like the Chinese.

Despite the fact that traditional Chinese medical practices were established in China centuries ago, continued use of traditional health practices upon arrival to Canada may actually serve to further marginalize Chinese Canadians. When differences are not openly acknowledged, Chinese Canadians who adhere to these practices may feel insecure (Fink, 2002). Consequently, some would argue that the existing health care system with its emphasis on universal access is inadequate because it fails to meet the needs of many Chinese Canadians, both foreign and Canadian-born. Because the

---

2 Good (1994) argues that the term health beliefs is problematic based on how the meaning of the word ‘belief’ has evolved. With this in mind, in this paper health beliefs should be conceptualized as the way in which people understand health and illness.
dominance of the biomedical model is at the core of this system, it could be argued that
the system needs to be refined so as to allow all Canadians the freedom to choose which
type of health care services are most appropriate to meet their needs. There is a need then
for policymakers to confront the long-standing inequality within the health care system
stemming from biomedicine’s historic monopoly over health care and treatment (Saks,
2000).

In Chapter 2 the purpose of this research study is articulated in addition to
establishing a conceptual framework to help contextualize the study. Chapter 2 also
includes a review of relevant literature. In order to assess the shortcomings of the current
health care system, a brief examination of the history of the system and the historical
relationship between biomedicine and alternative medicine is presented. Following this,
the current study provides a description of the biomedical and population health models
on which the current Canadian health care system is based. This is in addition to
presenting a more detailed working definition of complementary and alternative
medicine. The study also examines how “health” is defined within each of these
frameworks. Next, a presentation of trends in CAM use and an in-depth examination of
the health practices and beliefs of immigrants in Canada is provided, followed by a brief
exploration of the history and theoretical underpinnings of Traditional Chinese Medicine
(TCM).

Chapter 3 addresses the research design and methodological aspects of the study.
Addressing each of the salient topics in the literature review provides a basis on which to
explore the relationship between Chinese Canadian ethnicity and the use of
complementary and alternative forms of medicine, with a particular focus on traditional
Chinese medicine (a popular form among Chinese Canadians), in Chapters 4 and 5. Briefly, the quantitative results show that Chinese Canadians are more likely to use CAM. The findings also suggest that Chinese Canadians have a higher likelihood of CAM use if they live in Toronto or Vancouver, feel strongly connected to their community, are female, are between 50 and 65 years of age, have at least one chronic condition, and report being in fair or poor health. The qualitative findings illustrate that motivations for using CAM are connected to social factors (i.e., acceptance within familial and social networks), cultural factors (i.e., cultural understandings of health and illness), structural factors (i.e., availability of the services), and health factors (i.e., the presence of at least one chronic condition). These findings also provide a synopsis of Chinese Canadians’ experiences with both Western and Chinese medicine. A discussion of the quantitative and qualitative findings follows in Chapter 6, which also includes policy implications, a critique of the CCHS, and recommendations for future research.
CHAPTER 2: Purpose, Conceptual Framework, and Literature Review

2.1 Purpose

The purpose of this study is to examine the relationship between Chinese Canadian ethnicity and the use of complementary and alternative medicine (CAM) in Canada, and to explore some of the factors that contribute to CAM use among this visible minority group. Using a combination of secondary data analysis and two case studies, this study: (1) examines the extent to which CAM use varies among Chinese Canadians and non-Chinese Canadians (by immigrant status, charter language ability, socio-economic status, gender, and other diversity markers); and (2) provides insights into the reasons why Chinese Canadians use CAM. In this study CAM use is defined as having used at least one form of unconventional health care (e.g., herbal medicine, acupuncture, massage therapy) during the past year. This is consistent with the definition used in the Canadian Community Health Survey (CCHS). I recognize that this definition is limited by its inability to address major issues, such as power, mandate, and regulation, that exist between CAM practices. It is important to acknowledge, therefore, the diversity that exists within CAM and recognize that a single mandate or type of regulation is not suitable for all CAM practices because of these vast differences. It is also important to acknowledge that this diversity among CAM practices also translates into power differentials across practices within the field of alternative medicine. In addition, in this study Chinese Canadian is also defined based on the CCHS, which includes people who self-identify as being of Chinese ethnic origin or a combination of Chinese and other ethnic origins. This includes people born in Mainland China, Taiwan, Hong Kong,
Macao, Canada, and numerous other countries. This operationalization has limitations in that the definition of Chinese Canadian should be based on more than country of birth. It is important to acknowledge that the Chinese Canadian population is diverse in that there are cultural and linguistic (including dialectic) differences between these groups, which can shape understandings of health and illness, which, in turn, can affect patterns of CAM utilization. Because of limited sample sizes for some of these groups, however, all Chinese Canadians have been grouped together in this study.

Further, some of the factors that may contribute to CAM use among Chinese Canadians that are examined include: alternative/traditional health ideologies and beliefs; immigrant status; region of birth/residence prior to immigration; time since immigration; the nature and number of chronic condition(s); discontent with conventional medicine and the extent to which the geographic community of residence is institutionally complete (see Astin, 1998; Mackenzie et al., 2003; Millar, 1997; Najm et al., 2003; Struthers & Nichols, 2004; Lee et al., 2001).

While some Canadian literature regarding CAM use exists (McFarland, Bigelow, Zani, Newsom, & Kaplan, 2002; Millar, 1997), there has been very little research that examines the relationship between immigrant status, ethnicity (particularly Chinese), and CAM use. Focusing on Chinese Canadians is particularly relevant since they are the largest visible minority group in Canada, with over 70% being foreign-born. Chinese Canadians comprise almost 3.5% of Canada’s total population, which translates into more than one million people. Ontario’s population is over 4% Chinese Canadian, while Metropolitan Toronto is almost 9% Chinese. Chinese Canadians comprise more than 9%
of British Columbia’s population, and over 17% of Metropolitan Vancouver’s population (Statistics Canada, 2001).

CAM use among Canada’s Chinese population is a salient health care policy issue within the context of re-defining the Canadian health care system and the delivery of culturally sensitive care to all Canadians. The current study assists in guiding policy development by providing policymakers with knowledge about the extent to which Chinese Canadians are using CAM as well as much-needed insight into the reasons for its use. Moreover, the decision to use a mixed-method design – the collection and analysis of both quantitative and qualitative data – reflects the need to view social research as an iterative process. Specifically, findings from the quantitative analysis can provide a starting point for question development for the qualitative case study design, while information from the case studies could, perhaps, be used to alter and improve the construction and revision of culturally relevant questions in national health surveys like the CCHS. Recognizing that the research process is iterative allows for this type of scrutiny with regard to existing surveys, such as the CCHS. A major contribution of this study then is methodological in that the use of a mixed method research design highlights the complementary nature of quantitative and qualitative research approaches, and provides an opportunity to critique the content and nature of the questions in the CCHS.

2.2 Conceptual Framework

This study uses a conceptual framework of power and inequality based on the work of Pierre Bourdieu to examine and understand the complementary and alternative medicine utilization patterns of Chinese Canadians. Bourdieu’s notions of power and
inequality are well-suited to this study because he does not reduce inequality to economics nor does he reduce power to physical violence; rather, he extends the notion of power to encompass conduct, practice and position-taking. In turn, this can result in the misrecognition or unequal treatment of the values and traditions of others, which Bourdieu terms *symbolic violence* (Bourdieu, 1985). The application of this perspective within the current study is relevant at two different levels: (1) at the macro level, it illustrates biomedicine’s dominance over CAM within the Canadian health care system; and (2) on a micro level, it serves to highlight the ways in which the traditional health beliefs of individual Chinese Canadians are marginalized and devalued with regard to their experiences. That is, in addition to providing a framework for examining the prevalence of CAM use among Chinese Canadians, it allows for the exploration of previously unarticulated insights into how the disparity between biomedicine and CAM, as well as conventional and traditional/alternative health beliefs, plays out in the lives of Chinese Canadian CAM users.

While this study does not directly explore how biomedicine dominates CAM within the health care system, insights into this relationship that can be gleaned from this study are necessary given the implications that this inequality in the system has at the individual level, particularly for Chinese Canadian CAM users. An examination of this systemic disparity is best explored through a lens of power and inequality since this can be used to explicate how this imbalance has evolved and why it has been upheld with very little criticism.

A number of studies have investigated how biomedicine’s monopoly over health care within Western societies has transpired (see Evetts, 2002; 2003; Freidson, 1970a;
1970b), while others have explored how this inequality has affected the
"professionalization" of alternative health providers and the credibility of CAM practices
(see Welsh, Kelner, Wellman, and Boon, 2004). Few studies, however, have explored
how the unequal positioning of biomedicine and CAM affects individuals, including
allopathic doctors, alternative health practitioners, and CAM users, in their everyday lives
(see Saks, 2000; Hess, 2003; Milden and Stokols, 2004; Fink, 2002). And, very few
studies have explored how the tension between conventional medical beliefs and
alternative health beliefs affects individual Chinese Canadians (or visible minorities) who
are deciding whether to use CAM or to rely entirely on the dominant biomedical health
care system for their health needs.

Situating this research in the context of a power and inequality framework
facilitates a deeper understanding of how Chinese Canadians’ decision to use (or not use)
CAM is negotiated, a decision that is negotiated based on social (i.e., social networks),
cultural (i.e., traditional health beliefs) and structural (i.e., CAM’s position within the
health care system compared to that of biomedicine) factors. Chinese Canadians directly
experience issues of power and inequality when: (1) they choose to use alternative
medicine; (2) they are unable to access these services because of insufficient financial
resources; and/or they experience fear of the associated stigma that oftentimes
accompanies CAM use. Further, this framework provides a platform from which to
examine how the marginalization of Chinese Canadians’ traditional health beliefs
mediates users’ willingness to disclose their use of CAM to allopathic doctors, family
members, and other friends and/or acquaintances both within and outside the Chinese
Canadian community.
The work of Pierre Bourdieu can be used to articulate how power and inequality operate in the context of CAM use at both macro and micro levels. Bourdieu is interested in the way in which the social world happens and what makes people behave the way they do. Some of his concepts can be used to explicate how specific forms of social practice, such as health care practices, are reproduced within Canadian society and within the Chinese Canadian community. To fully grasp how this happens, it is necessary to briefly consider some basic aspects of Bourdieu’s general theoretical work.

Bourdieu’s sociology bridges the gap between structure and agency by making a conscious effort to locate individuals within a social structure or what he terms a social space. He believed that social structure and individual actions and beliefs are both crucial factors in directing an agent’s course in life (Seidman, 1998). Bourdieu worked to explicate how agents operate within the social world, a world that is marked by inequalities. To do this, Bourdieu reconceptualized the notion of an agent’s subjectivity in terms of habitus and the notion of social structure in terms of field (Mahar et al., 1990; Bourdieu, 1990). Habitus is an agent’s social disposition; Bourdieu refers to it as “a system of more or less well assimilated and more or less transposable schemes of thought” (Bourdieu, 1991). In creating the concept of habitus, Bourdieu attempts to connect agency (habitus) with structure (field). This is important because, for Bourdieu, everything in the field is relational, and agents relate and interact through different forms of capital, which leads to class fractions. Bourdieu’s comprehensive notion of class indicates that classes or groupings of people are not limited to similar economic dispositions. Instead, agents can be organized based on a variety of discernable divisions, including social capital (Bourdieu, 1985; 1997). Moreover, an agent’s habitus, which
limits his/her range of possible choices and actions, is contingent on his/her position
within the field (Bourdieu, 1990). The social construction of reality, then, is based on
interactions between agents and their position in the field.

Further, Bourdieu uses three other concepts, doxa, orthodoxy, and heterodoxy, to
describe how dominant systems of knowledge are established in addition to how they
operate within a field. Doxa refers to undisputed values and discourses within a field
(Bourdieu, 1990). Doxa can be loosely defined as dominant systems of knowledge,
which translate into unquestioned practices and beliefs. Doxic knowledge is rare in that it
must be accepted and legitimated by all (Bourdieu, 1990; Webb, Schirato and Danaher,
2002). Orthodoxy is the imperfect version of or proxy for doxa in that it serves as the
dominant “common sense” values and beliefs within a field. This is typically reflected in
the ‘official history’ of that particular field through official documentation and practice.
Orthodoxy rejects alternative opinions as blasphemous; however, orthodoxy exists only in
relation to heterodoxy, a set of values and beliefs that challenges the orthodoxic status
quo within a field (Bourdieu, 1990). Orthodoxic knowledge is hegemonic in nature;
nonetheless, heterodoxy is the platform from which the established knowledge system
within in a field is challenged and forced to continually reestablish itself as the dominant
knowledge or face the possibility of losing its position (Bourdieu, 1990). It is through
this constant negotiation that a hierarchy is achieved within and among different fields
(Bourdieu, 1985). Structural inequality is reproduced in many fields because the ideals of
the dominant class are synonymous with the ideals of the dominant culture, while the
ideals of those in lower social positions are hardly considered. Thus, the dominant
ideology of those with high levels of capital (which for Bourdieu is any source of power,
including economic, social, and cultural sources) becomes common sense in the social world and is legitimated in many fields through a process of consensus that takes place within the dominant community. I aim to interrogate this process and how its results affect those outside the dominant community.

With this in mind, for Bourdieu, power is not simply a "power over" or "elite power;" instead, power is conduct, practice, and position-taking (Bourdieu, 1985). Position-taking is the mobilization of one's capital against another's. Social capital (as well as other forms of capital) is linked to an agent's power and his or her ability to decide what becomes dominant knowledge, and ultimately, common sense (Mahar et al., 1990). Further, an agent's ability to exercise power is directly related to his/her habitus or social disposition, which is structured in a hierarchical fashion based on the agents' accumulated capital. Bourdieu's broader notion of capital advances our understanding of how structured inequalities persist in everyday life, as capital is at the root of domination (Mahar et al., 1990). Symbolic violence, then, is the misrecognition of another's capital. This violence is exercised upon individuals not physically but symbolically in that their knowledge and capital may be treated as inferior within a particular field (Bourdieu, 1985).

In the context of this study, biomedical discourse is orthodoxy because it is the "common sense" method of understanding health and illness in mainstream Western society and, therefore, provides the ideological foundation for the field of health care in Canada. For the vast majority of Canadians, biomedicine is considered to be the "best" way to deal with health problems. However, some people dispute this claim, so the philosophies behind alternative medical practices serve as the heterodoxic knowledge that
contends with biomedicine. This is consistent with Bourdieu’s assertion that there is a hierarchy of knowledge within fields (Bourdieu, 1985), which helps account for the delegitimization of certain types of knowledge and therapies within the field of health care, particularly with respect to complementary and alternative medicine’s philosophies, therapies, and treatments. This is indicative of differing levels of social and cultural capital between allopathic and alternative health practitioners. Bourdieu asserts that agents within fields who hold dominant positions are able to dictate how things function within the field, a process which usually serves to further legitimate their dominance within the field (Bourdieu, 1990). Allopathic doctors in Canada have an extensive historical network of political affiliations, which have helped legitimate their work knowledge and establish a virtual monopoly within the health care system; in addition, the government has helped legitimate biomedical discourse as well as disseminate it to the masses through the media (Evetts, 2003).

This has implications at the individual level as well, particularly in the case of Chinese Canadian CAM users. Since the biomedical system of knowing and understanding health and illness has been made compatible with the field of health care in Canada, this way of knowing has been established as part of most Canadians’ habitus or disposition as well. This is consistent with Bourdieu’s notion that habitus (self) and field (structure) are inseparable. At the same time, I would expect many Chinese Canadians (especially immigrants) to have an existing disposition to use CAM and to adhere to its underlying philosophies because in China, the orthodoxic/heterodoxic divide between Chinese medicine and Western medicine is less evident. Therefore, when Chinese Canadians enter the established field that is the Canadian health care system, they may
experience a disjuncture between the new field and their own habitus. They still have a disposition that lends itself to using CAM, which is not necessarily congruent with the new field, because they have not been socialized within this same hegemonic field. The orthodox biomedical system of knowing and the people who work to sustain it may ascribe this position onto Chinese Canadian CAM users, thus performing an act of symbolic violence. Thus, the use of Bourdieu in the context of this research is fitting because his notions of power and inequality allow for a framework within which to articulate the lived experiences of Chinese Canadian CAM users.

2.3 Literature Review

2.3.1 A Brief Historical Examination of Canada’s Health Care System

The history of the Canadian health care system has borne witness to the dominance of the biomedical model and the marginalization and delegitimization of alternative practices and ideologies. For more than a century, biomedically-based medical professionals have participated in a favourable relationship with governments at both the federal and provincial levels. Indeed, these governments have given the medical profession authority on many important issues, including defining health and illness in addition to deciding what constitutes appropriate and inappropriate treatment (Evetts, 2002). Interestingly, recent British literature from the sociology of professions suggests that the autonomy and discretion of medical professionals is declining, partly because of biomedicine’s unwillingness to concede some of its power and dominance to other occupational groups, including alternative health care providers (Evetts, 2002; Saks, 1995).
Alternative medicine has increasingly challenged medical knowledge and the principles of biomedicine. Oftentimes many allopathic doctors feel “threatened” by alternative practitioners, partly because they themselves may not be knowledgeable about alternative therapies. Moreover, allopathic doctors and medical associations influence public attitudes towards alternative forms of medicine and their practitioners (Saks, 2000). Because they are relatively uninformed regarding many practices, allopathic doctors are often critical of CAM (Hess, 2004; Saks, 2000; Milden & Stokols, 2004). In fact, Western medical associations have felt threatened enough to attack the credibility of alternative practices, sometimes resorting to feeble tactics, such as referring to alternative practices as “witchcraft” (Saks, 2000).

Unlike allopathic health care practitioners who hold positions in the health care system, government recognition of many alternative health practices, including, among others, naturopathy and acupuncture, has not always been granted, serving as a barrier to occupational legitimacy and credibility (Welsh, Kelner, Wellman, & Boon, 2004). This, however, is slowly beginning to change in some provinces, with Ontario and British Columbia leading the way. Nonetheless, licensing and regulation is only one (albeit a very important) step in the process of rectifying the imbalance and inequality between conventional and alternative practices and ideologies.

Traditional health beliefs held by many immigrants, the foundation of alternative medicine ideologies, have largely been left out of decision-making when it comes to accurately defining what constitutes health and illness as well as what are deemed acceptable modes of treatment. This may be due, at least in part, to the importance of evidence-based medicine in establishing what is considered “appropriate” treatment,
something that has not traditionally been a focus of alternative medicine (Timmermans & Berg, 2003). Historically, alternative therapies were considered valid only when based on expert knowledge, authority, tradition, and, ultimately, people’s positive experiences. This combination of factors served as adequate evidence; thus, people continued using these ‘alternative’ treatments. The assertions that alternative therapies do in fact work are not typically trusted by advocates of evidence-based medicine (Timmermans & Berg, 2003). However, this is slowly beginning to change as more peer-reviewed research is being conducted by researchers within the alternative medicine community as well as researchers in the biomedical and social scientific communities. Despite this, such initiatives will not solve this problem entirely because some forms of CAM cannot be tested through an evidence-based approach. For example, scientific testing cannot prove (or disprove) the increased flow of qi due to acupuncture because qi is a philosophical concept. Thus, different methods of legitimating health practices and treatments must be considered.

Another issue is the continued debate over what health-related occupations are considered ‘professional,’ which serves as another means of upholding inequality and furthering marginalization. In many cases, professionals are considered to be society’s elite. Professional groups, such as the Canadian Medical Association, as well as individual professionals often have important political ties (Evetts, 2003). Elite status coupled with strong political ties can result in numerous rewards and advantages for specific professional groups, putting CAM practitioners at a further disadvantage.

Freidson (1970a) provides a clear example of this through his account of the historical

---

3 It should be noted that most of these practices are not necessarily considered ‘alternative’ in immigrants’ home countries. With this in mind, immigrants may not consider themselves CAM users when living in Canada because they may not conceptualize the practices they use as ‘alternative’.
and on-going mutual relationship between government, allopathic doctors, and the biomedical community at large. He maintains that governments have played an important role in helping establish allopathic medicine’s dominance within the field of health care, and that the structure of these power relations within the field of health care must be challenged. While some studies suggest that biomedicine’s dominance has been on the decline since the 1980s (Coburn, Torrance, & Kaufert, 1983), it is still accurate to situate biomedicine at the top of the hierarchy within the field of health care, and it is, therefore, still challenged by competing voices within the field.

A profession is typically organized by self-regulation and the uniting of practitioners into professional associations in addition to statutory government regulation. Through this, governments grant and professional associations attain control over some function or practice, such as the delivery of health care. Freidson (1970a) argues that the medical profession’s dominance is clearly political in nature, as the government has helped to establish the medical profession’s monopoly over the delivery of health care, especially that of allopathic doctors who have been granted informal authority over all other health professionals including both those within the biomedical system and others outside of it (Freidson, 1970a; 1970b). Further, the government has aided in protecting and maintaining the dominant position of medical professionals by implicitly valuing their knowledge and work above the knowledge and work of alternative health care practitioners (Freidson, 1970a). It is evident from this study, then, that the government has played an important role in marginalizing and discrediting CAM practices.

Given the role the government has played coupled with the reality of the relationship between visible minority immigrant status and CAM use, it is not surprising
that visible minority immigrants have had to access these services under less visible circumstances. The marginalization of CAM practices by government and physicians has pushed them underground, where the implementation of standards and regulations has been extremely difficult. On a related note, most CAM users do not disclose the fact that they use CAM to their family doctor (Eisenberg et al., 1993; 1998). At least in part, this may be connected to a fear of stigma because CAM users do not feel their physicians and/or family members will understand and accept their reasons and motivations for using these treatments. In the case of immigrants and visible minorities, possible reasons for these feelings of insecurity may include the concern that medical practitioners do not respect alternative health practices, and, as a result, patients believe they will be treated differently (Fink, 2002). Above all, then, change in the way CAM is viewed by the government and the biomedical community is needed, particularly given the increasing proportion of foreign-born citizens in the Canadian population.

2.3.2 What is health? Definitions & Viewpoints from Biomedicine and CAM

Before contrasting how the biomedical model and CAM approach health, it is useful to examine how health is defined by the World Health Organization (WHO). The WHO defines health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (http://www.who.int/about/definition/en/). Contrary to orthodox biomedicine’s definition, the WHO’s definition of health encompasses a more holistic perspective, which recognizes the importance of mental, physical, and social health and well-being. The biomedical model largely fails to encompass non-biological factors as contributors to health and well-being. While
specific CAM practices may only consider some of these factors explicitly, the general, underlying philosophy and framework of most practices allow for all of these aspects to be considered (either explicitly or implicitly) when treating a person (Bates, 2000). Despite the seemingly radical differences between biomedicine and CAM, the very use of the term "complementary" implies at least some level of compatibility between the two systems. Thus, rather than conceiving biomedicine and CAM as opposites, it is more appropriate to conceptualize their underlying philosophies regarding health care along a continuum, whereby different facets of each system fall at different places on the continuum. With this in mind, further inquiry into both approaches is essential in order to understand why the standard biomedical definition of health, which emphasizes curative treatments rather than preventative health maintenance, is insufficient. This is important given that many forms of CAM emphasize preventative health care, a subject that deserves more attention within Canada’s biomedically-dominated health care system. It should be noted that since CAM is often operationalized in opposition to biomedicine within the literature, the following examination of biomedicine chiefly fails to recognize the systems using this notion that their approaches are best conceptualized along a continuum rather than as a dichotomy.

Canada’s existing health care system is based primarily on the framework of biomedicine (Mishler, 1981). The biomedical model is entrenched within the Canadian system, viewing health as the absence of disease and focusing almost entirely on the biological determinants of disease and illness. This framework has four main assumptions: (1) disease represents “deviations from normal functioning,” (2) the doctrine of specific etiology, (3) the assumption of generic diseases, and (4) the scientific
neutrality of medicine (Mishler, 1981). As a result, the health care system has focused primarily on acute care, which in turn, often only provides temporary solutions without solving underlying problems (McKinlay, 1994). In addition to being almost exclusively focused on "cure" rather than prevention, another major shortcoming of the biomedical framework is that, for the most part, it fails to consider the social context in which disease occurs. Consequently, the model is limited in its ability to address health issues across different cultures (Helman, 1991). Although biological components are an important part of medicine, disease is much more complex than these components alone.

Granted, over the past few decades Canada's health care system has acknowledged the importance of some aspects of the population health model which, despite being based on the biomedical model, considers many social determinants of health, including factors such as hierarchy, social status, and social cohesion, in addition to demographic characteristics like age, gender, income, education, and ethnicity (Evans, 1994; Muntaner, Lynch, & Oates, 2002; McDonough & Walters, 2001). However, according to Evans and Stoddart (1994), even though social determinants of health included in the population health model have been acknowledged and recognized as important, both the federal and provincial governments have largely failed to create and implement policy that deals with the inequalities people experience, a failure that has resulted in the perpetuation of negative effects on health. Even though evidence from research addressing topics like environmental sanitation, quality of nutrition and shelter, stress, and social environment clearly points to a relationship between social inequalities and poor health, the government has not directly addressed these problems through its health care policies and/or programs (Evans & Stoddart, 1994).
Inhorn and Whittle (2001) argue that some health models perpetuate social inequalities in health even though they were developed to alleviate such disparities. This is linked to Conrad’s (1992) evaluation of medicalization as a form of social control, which can operate through dominant ideology (i.e. biomedical knowledge) and practice (i.e. services covered under Medicare). To change this, the system requires a renewed focus on the “upstream” which may ultimately require a fundamental change in Canada’s underlying political ideology, with the government taking more responsibility for the overall well-being of its people (McKinlay, 1994; Navarro & Shi, 2001). Unlike the biomedical model, CAM approaches illness and disease in a more holistic way, taking body and mind into consideration. Thus, one possible place to begin changing the system is with CAM, which focuses on the overall well-being of individuals, including their social, cultural, and often spiritual identities, in the treatment of illness. In fact, Struthers and Nichols (2004) suggest that CAM is used or at least could be used to reduce inequality with regard to health and health care among marginalized people, including immigrants and visible minorities, because CAM practices often provide a more culturally appropriate style of health care. CAM may also help alleviate some of the barriers to access that immigrants often face if traditional ways of treating illness could be delivered by practitioners who have similar ways of understanding health and illness, who use familiar terminology, and who may even speak the same language. Using CAM to help reduce inequality and alleviate barriers to access is consistent with a relatively new initiative in health care delivery called “mainstreaming,” which works to make health care services more accessible to visible minority Canadians (Hudspith, 2005).
The debate between “mainstreaming” and “dedicated programs and services” is especially relevant considering Canada’s visible minority population has been and continues to increase substantially. While “mainstreaming” aims to acknowledge and include ethnicity and culture as important elements to consider when making policy or planning services, “dedicated programs and services” are developed for specific ethnocultural groups (Hudspith, 2005). The implementation of “dedicated programs and services” is problematic in that these programs and services facilitate segregation, which may lead to further misunderstanding and intolerance. On the other hand, “mainstreaming” values cultural diversity and allows for culturally sensitive care while, at the same time, promoting integration into Canadian society by establishing an underlying set of common values (in this case, relating to health care) that, ideally, everyone accepts. Ultimately, the promotion of integration, inclusion, and solidarity rather than segregation, exclusion, and discord are better attained using a “mainstreaming” approach, which is also more consistent with the basic tenets of Canada’s Multiculturalism Act (http://laws.justice.gc.ca/en/C-18.7/32217.html). In the context of health care then, one way to make services more culturally sensitive is to make CAM available to all Canadians. A more thorough discussion of CAM will provide insights into why certain visible minority groups want access to these services.

A working definition of CAM is needed here to provide an understanding of how its approach to health differs from that of the biomedical model.4 CAM consists of a

---

4 While a working definition of CAM is essential to this research project, it is important to note that there is no standard definition. Consequently, the definitions used in most of the research in this area are inconsistent. This is a major concern, as it proves difficult to compare studies in the research area of CAM. Thus, the term ‘CAM’ itself is highly problematic, and perhaps leading alternative medicine organizations, academic researchers, and government officials should work together to create more standard sets of definitions so that research in this area can become more focused and more easily compared.
diverse group of perspectives and approaches to health, which are supported by a variety of theories, observations, facts, values, and social elements (Hufford, 2002). CAM includes many forms of care, such as naturopathy, chiropractic, homeopathy, herbal remedies, acupuncture and other traditional Chinese medicine, midwifery, and Ayurvedic medicine, in addition to more self-administered, less formal types of care, such as folk medicine. Different forms of CAM have varying levels of acceptance within mainstream Canadian society. Some modalities, like chiropractors and midwives, have governing bodies, professional organizations, and mandates, and their practitioners are regulated and licensed. Therefore, degrees of power range among CAM modalities within the field of alternative health care in addition to the power imbalance that exists between CAM and biomedicine within the broader field of health care in Canada. CAM practices that may be viewed as having more power (i.e., chiropractors, massage therapists, and midwives) are often the modalities that have sought or are seeking professionalization through regulation and licensing. Moreover, the steady increase in the utilization of CAM could be perceived as a social movement, but this social movement may be limited to certain forms of CAM that have been deemed more “legitimate” because they have professional organizations and mandates, some level of state support (i.e., through insurance), and loyal, more educated clientele. Other forms of CAM that lack regulation and therefore legitimation like TCM or Ayurvedic medicine may be perceived as being a fringe or alternative social movement due to the “average” demographic profile of their clientele (i.e., visible minority, immigrant, less educated), which may, in turn, link practices like TCM to culturally “different” (i.e., traditional ethnic immigrant) understandings of health.
As was previously mentioned, CAM is often defined in opposition to conventional medicine, but it has also been defined on its own accord as a complete model of health care. The American-based National Center for Complementary and Alternative Medicine (NCCAM) defines CAM as "a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine" (http://nccam.nih.gov/health/whatiscam). Complementary medicine is further described as being used in conjunction with some form of conventional medicine, while the term alternative medicine is used instead of conventional medicine (NCCAM, 2002). However, defining CAM in opposition to conventional medicine is highly problematic. Defining the term in this hegemonic way serves to reestablish and maintain conventional biomedicine's longstanding, relatively unquestioned dominance over alternative medicine. The disproportionate balance in legitimacy between biomedicine and alternative medicine, which is specified within the very definition of the term, needs to be called into question in order to properly legitimize CAM as a set of practices and ideologies.

Alternatively, the Canadian College of Naturopathic Medicine (CCNM) defines naturopathic medicine, which incorporates many forms of alternative medicine, as "a complete and coordinated approach to health care" which includes "diagnosis, treatment, and prevention using natural therapies and gentle techniques... integrating scientific knowledge with traditional healing wisdom" (http://www.ccnm.edu/about.html). Like some aspects of conventional medicine, what underlies all forms of CAM is a strong emphasis on removing the causes of illness rather than just the symptoms. In addition, consistent with the WHO's definition of health, CAM recognizes that physical, mental,
emotional, genetic, environmental, and social factors all contribute to a person’s health status (CCNM, 2004).

Finally, an examination of CCNM’s six basic principles to health care along with Bates’ (2000) models of the classical paradigm (CAM) and the 20th century paradigm (biomedicine) helps to further illustrate and clarify the major differences between how biomedicine and CAM perceive health (see Table 1, included as Appendix A). Bates highlights other important differences that make the classical paradigm stronger and more effective than the 20th century paradigm. Some of these include classical medicine’s holistic as opposed to localized view of illness, its emphasis on knowing the person rather than the disease in diagnosis, its gentle and “natural” as opposed to aggressive and “artificial” techniques in therapy, its ability to be understood by the patient (although not always), and its doctor-patient relationship, which is more humanistic and patient-oriented (Bates, 2000). It is also important to note that many CAM practices require that emotional, environmental, and social factors, which may include variables such as social support, stress, working conditions, unemployment, housing, poverty, and early childhood years, be taken into account when finding a suitable way to care for the health of the whole person (CCNM, 2004). Thus, alternative medicine’s overarching ideology recognizes that a myriad of factors can affect a person’s health and may, in fact, be manifested through specific symptoms or illnesses, and that each of these factors is important when treating patients.

After comparing the different principles that underlie the paradigms on which biomedicine and CAM are based, it is not surprising that each year more Canadians recognize the positive aspects of holistic health. This can be seen through statistics
which indicate the steady increase in the number of Canadians who utilize CAM each year (Hufford, 2002). This movement towards CAM may reflect a growing dissatisfaction with the biomedically-based health care system. CAM requires that a person maintain a balance of body and soul to be considered healthy, but biomedicine only considers the body and reduces it to different parts rather than viewing it as a functioning whole. The biomedical model also fails to identify and define what constitutes “normal,” a vague and undefined term.

2.3.3 Trends in CAM Use

Despite the existence of a diversity of health care practices and beliefs, Canadian health culture over the past century has been limited to allopathic medicine, acknowledging this model as its convention. Conventional medicine has largely treated CAM in a very paternalistic fashion, often questioning and trying to discredit CAM practices so as to further its own objectives. Instead of welcoming diversity and the freedom of inquiry, biomedicine has only been open to new views within the narrow scope of conventional medicine (Hufford, 2002). In fact, up until the 1980s, alternative medicine use was often associated with low income and low education as well as ethnic and religious minorities. Many believed that CAM practices would no longer be desirable and would eventually disappear as people became better educated and biomedicine became increasingly accessible to all (Hufford, 2002).

Despite biomedicine’s “medicocentric” claims and its attempt to restrict health care to practices within the boundaries of conventional medicine, CAM has continued to grow in popularity, especially over the past 15 years (Hufford, 2002:30). A 2001 Health
Canada publication reported that 25% of Canadians regularly use some form of CAM. According to a 1994-1995 study by Millar (1997), this proportion is more conservatively estimated at 15% of Canadians over 15 years of age. Regardless of the exact percentage, researchers agree that general use of complementary and alternative medicine is on the rise (Suzuki, 2004; Astin, 1998; Eisenberg et al., 1993). CAM and other “traditional” forms of medicine are not only popular in Canada, they are common all around the world, with 42% of Americans, 48% of Australians, 49% of the French, 40% of Chinese, and almost 80% of Africans regularly using traditional and/or complementary and alternative medicine (Bodeker & Kronenberg, 2002). However, as stated earlier, the methods and definitions used to collect these statistics were probably not standardized, and should be interpreted with caution. Despite this methodological issue, these figures point to a general interest and, in Western countries, an increase in the utilization of CAM practices over time.

In spite of the fact that a substantial proportion of people around the world are regularly using some form of CAM, these practices have not been fully recognized by nor integrated into the national health care systems of most Western multicultural countries (Fink, 2002). Nevertheless, it appears that some level of recognition of the value of CAM practice is underway in some geographic regions in Canada. For example, the Canadian Cancer Society co-hosted a symposium on cancer treatment and prevention with practitioners from the college of Traditional Chinese Practitioners in Vancouver (Canadian Cancer Society, 2003). Further, the percentage of Americans regularly using CAM rose eight percent from 34% to 42% in only seven years (Eisenberg et al., 1993; 1998), and some researchers attribute at least part of this increase to the progressive
increase in ethnocultural diversity (Hufford, 2002). This link, however, has yet to be confirmed in the literature.

In Canada, CAM use has been found to be most common among women, older adults between the ages of 45 and 64, people with higher education and incomes, and those suffering from at least one form of chronic illness (Millar, 1997). Generally, users are also more likely than non-users to emphasize self-care and fitness and be involved in social movements, such as patients’ rights and consumer movements (Furnham & Vincent, 2000). A groundbreaking American study found that of those who reported using CAM, the typical user visited a CAM practitioner on average 19 times per year at an average cost of $27.50 per visit. Of course, it is important to note that the American health care system is much different from the Canadian system, particularly with regards to the cost of care. Nonetheless, American CAM users tend to be white, have relatively high incomes, be more highly educated, and between the age of 25 to 49 years. American users are also more likely to be suffering from a chronic condition. In 1990, Americans made more visits to CAM practitioners than to their family doctors, and they spent almost an equal amount of their own money on alternative therapies as they did on hospitalizations (Eisenberg et al., 1993; 1998).

While most studies to date have focused on who uses alternative medicine, a few studies have attempted to understand why people choose to use CAM (see Astin, 1998; Kelner and Wellman, 1997). To date, however, there have been even fewer studies that have focused on ethnocultural minorities’ reasons for use. These studies generally conclude that the decision to use CAM is based on a combination of factors, such as being discontented with conventional medicine, having an “alternative ideology,” trusting
public and private testimonials regarding CAM's effectiveness, and being in tune with a variety of different social movements (Astin, 1998; Kelner and Wellman, 1997:209; Furnham and Vincent, 2000). Kelner and Wellman (1997) used the Anderson socio-behavioural model to examine the factors that influence why people use CAM. More specifically, the model examines how *predisposing* factors, such as age and education, *enabling* factors, including community and personal resources that make CAM accessible, and the *need* for care, such as suffering from a chronic illness, influence people's decisions to use CAM. According to this model, there is clearly a relationship between social, structural, and health variables that predisposes people to CAM use. Kelner and Wellman (1997) describe those who hold an “alternative ideology” or alternative health beliefs as being more committed to preventative health care (which is connected to a personal emphasis on health maintenance), having a more holistic view of health, being more open to alternative therapies, and wanting more personal control over their health and health-related decisions.

Goldstein (2000) maintains that a growing emphasis on health promotion and fitness through the media in addition to CAM's developing relationship with other dominant economic powers, including pharmaceuticals, insurance companies, political parties, lobby groups, and ethnocultural organizations, are also partly responsible for the increased public interest in CAM. Further, some of the growing interest in CAM can be attributed to its effectiveness. Despite what many biomedical professionals would have people believe, some forms of alternative treatment have proven to be medically effective through scientific study (Fink, 2002; Goldstein, 2000; Ernst, 2000). In fact, a recent randomized, double-blind, placebo-controlled Canadian study found that Cold-FX, a
natural health product that contains North American ginseng extract, effectively reduced
the number of colds as well as the severity and length of cold symptoms study
participants experienced (Predy, Goel, Lovlin, Donner, Stitt, & Basu, 2005). Cold-FX has
passed the first phase of clinical trials performed by the American Food and Drug
Administration (FDA). This marks one of the first occasions where an alternative
product has been acknowledged and deemed worthy of a “clinical trial.”

2.3.4 Ethnicity and Health Care Choices:
Ethnic Enclaves, Institutional Completeness, Social Capital, & Acculturation
Culture is often associated with ethnicity, and for members of ethnocultural
minority groups, their identities create collective meaning and community and serve as a
basis for mobilization (Alund, 2003). It is through the construction of identity based on
ethnicity and culture that visible minorities may confront problems and make decisions
(Nagel, 1994). It is apparent that medicine and health beliefs are culturally constructed
because different types of health care and health ideologies are produced by different
cultures (Mckenzie et al., 2003). For example, TCM was developed by the Chinese,
Ayurvedic medicine by South Asians, and homeopathy by the Germans, while the tenets
of Western biomedicine are rooted in ancient Greek culture. Biomedicine largely
monopolizes insured health care in North America even though many people’s health
beliefs are not necessarily congruent with the biomedical model (Mckenzie et al., 2003).
Many people subscribe to different health beliefs, the majority of whom are immigrants
and visible minorities. Given that an individual’s identity is greatly shaped by ethnicity
and other cultural factors, such influences may have a significant impact on the formation
of his/her attitudes, decisions, and actions with regards to physical and mental health (Nagel, 1994; Hufford, 2002).

The cultural context of the lives of visible minorities, regardless of immigrant status, influences their decisions and willingness to adhere to certain ideologies and practices. This includes their decisions and actions regarding health and health care. Further, the size and strength of an ethnic community in addition to the number of services it provides is directly related to its ability to impose (and maintain) dominant cultural ideologies and practices onto individuals (Breton, 1964; Hedley, 1980; White, Fong, & Cai, 2003). Research in this area has primarily focused on the establishment of ethnic enclaves and the extent to which these communities are institutionally complete (see White et al., 2003; Fong & Wilkes, 2003; Fennema; 2004). It can be expected that visible minority immigrants who live in ethnic enclaves that have elements of institutional completeness would be more likely to adhere to traditional health practices and beliefs than those who live in other “less complete” areas.

The majority of visible minority immigrants typically settle in one of Canada’s three largest cities: Toronto, Montreal, and Vancouver (Fong & Wilkes, 2003). These cities have well-established visible minority communities, which include ethnic neighbourhoods and residential spaces. The term ‘ethnic enclave’ usually refers to communities that consist of immigrants who have voluntarily chosen to cluster together in a neighborhood. While places of residence are important within ethnic enclaves, enclaves are sustained by locally run businesses (Wilson & Portes, 1980). Large cities typically have segregated residential patterns based on ethnic and cultural distinctions, including language, customs, and institutions (Fong & Wilkes, 2003; Breton, 1964). This
clustering partially accounts for the fact that members of visible minority groups typically have fewer acquaintances outside their ethnic group than Whites (Fennema, 2004). This is particularly true for recent immigrants.

There are many different factors that affect the prevalence of residential segregation, including the city’s economic base and housing types (Fong & Wilkes, 2003). Large cities with a relatively high proportion of foreign-born residents (especially recent immigrants) are also more likely to have higher levels of ethnic residential segregation (White et al., 2003). In turn, larger minority groups like the Chinese have greater resources to maintain support for “subgroup activities and institutions” (Fong & Wilkes, 2003:581) through, among other things, the accumulation of social and cultural capital. The term social capital is generally used to describe “social networks, the reciprocities that arise from them, and the value of these for achieving mutual goals” (Schuller, Baron, & Field, 2001:1). The concept can be used to highlight and explicate how social relations and common values influence attitudes and behaviours.

Certain ethnic groups, including the Chinese, have a history of living in relatively ethnically homogenous pockets within Canadian cities. For instance, when the Chinese first came to Canada, they were relegated to the margins of a “white man’s” society (Ward, 1990). Early Chinese immigrants often lived in close proximity to one another due to rampant social discrimination (White et al., 2003). Thus, in the beginning, ethnic enclaves developed not as a means of retaining culture and identity, but as a protective response. Today residential ethnic enclaves are primarily a place of comfort and familiarity for immigrants, and they facilitate the retention of traditional aspects of culture. Within these communities, immigrants often have the support of family and can
find employment and refuge in what might otherwise be an overwhelming new cultural context (Salaff, Fong, & Wong, 1999). The assimilation process for immigrants who join an ethnically segregated community is often much different from those who move to more ethnically diverse areas in that segregated communities more easily facilitate adherence to everyday practices (i.e., language, shopping, social interaction) that closely resemble practices from their countries of origin. Residential and community atmosphere can be very informative with respect to social patterns, structure, and relations within that society (White et al., 2003). Thus, the extent to which an ethnic enclave is *institutionally complete* may help predict whether traditional cultural ideologies and practices will be prevalent and maintained within a community.

Breton (1964) coined the concept of *institutional completeness* to describe the social organization of ethnic communities (Hedley, 1980). Breton concludes that the most extreme form of *institutional completeness* is present under the following conditions:

...whenever the ethnic community could perform all the services required by its members. Members would never have to make use of native institutions for the satisfaction of any of their needs, such as education, work, food, clothing, medical care, or social assistance. (p.194)

At the time of writing his article in the mid-1960s, Breton concluded that no *institutionally complete* ethnic communities exist in North America. While there are still no purely *institutionally complete* communities today, the extent to which certain communities within Canada have achieved such completeness has increased. For example, Richmond, British Columbia is a city whose population is almost 40% Chinese (many of whom are immigrants) and which meets many of the requirements of being *institutional complete* for the Chinese.
Large numbers of immigrants are needed to sustain a high level of *institutional completeness* within communities (Breton, 1964), and Richmond certainly fulfills this requirement. A large population of immigrants helps to cultivate social cohesion within the group while remaining distinct from other groups (White et al., 2003). Although children must attend Canadian schools and residents must pay Canadian taxes, Richmond strikingly resembles a Chinese city in that many of its people, languages, resources, road signs, restaurants, shops, newspapers, religious institutions, and health care services are distinctly Chinese. Breton (1964) describes many of these community features as important in achieving *institutional completeness*.

Moreover, the cultural context of a community, which is partly determined by the extent to which the community is *institutionally complete*, affects the lifestyle choices its members make as well as the activities and even health practices in which they participate. The processes involved in attaining *institutional completeness* directly influence members of ethnic communities and their interpersonal relationships (Breton, 1964). Therefore, it is expected that Chinese Canadians in Richmond, for example, would be more likely to use CAM and traditional Chinese medicine practices because these practices are congruent with their own traditional health beliefs developed over generations. It would not be surprising then if these practices were already widely accepted and available in the community. Based on this example, I expect that CAM use is more prevalent among Chinese Canadians who reside in more *institutionally complete* communities.

Further, patterns of ethnic residential segregation and the degree to which a community is *institutionally complete* provide insights into the social relations within that
community. These patterns affect everyday interaction and personal contact between members of the community (Fong & Wilkes, 2003). In turn, through these social relations and interactions, community members reaffirm ideologies that are central to their way of life. This includes beliefs about health and health care that may not be congruent with mainstream Canadian culture. Further, it is through these interactions that people accumulate *social capital* within a particular society.

Li (2004) points out that the effectiveness of *social capital* depends on both the breadth and depth of social ties and relations and the resources that are available to the group. Thus, *social capital*’s connection to ethnic enclaves and *institutional completeness* is apparent: ethnic social ties and common values based in ethnic cultures are more easily maintained in *institutionally complete* ethnic enclaves. *Social capital* coupled with *institutional completeness* facilitates commonality between community members with respect to the beliefs they hold and the services they use (Breton, 1964; Hedley, 1980; White et al., 2003).

Li (2004:171) also stresses the fact that the creation of *social capital* “may involve a potential cost to an individual.” Specifically, the ethnic attachment thesis and the ethnic mobility entrapment thesis argue that maintaining an ethnic identity and ethnic social networks actually costs individuals potential opportunities in terms of jobs and earnings. In turn, the concepts of social networks and trust are synonymous with *social capital*, and are used to help explain the connection between social relations, the resources that are gained through them, and their effect on attitudes and behaviours. The concept of *social capital* then has the ability to provide insight into how relationships,
community, and social environmental factors can help improve the health and well-being of the population (Hawe & Shiell, 2000).

Research in the field of health and health care has used the notion of social capital to partially account for structural inequalities, such as health disparities among individuals. While good health is considered an element of human capital, social capital is directly related to health status (Hawe & Shiell, 2000). Social capital can act as a form of support. Engaging in social relations and building social networks and trust can affect health and other factors associated with general well-being (Edmondson, 2003). Social capital is connected to the macro-community level of health status (Hawe & Shiell, 2000). At the individual level, social capital and social networks work to mediate difficulties people face, whether personal, financial, or health related. In particular, social networks provide people with practical ways of coping and dealing with difficulties and structural inequality (Cattell, 2004).

The social, cultural, and financial capital of different ethnic groups vary widely across groups. For example, according to Fong and Wilkes (2003), Asians have the highest average household income in the country. I suspect these factors may also help account for differences in adherence to traditional practices and beliefs within ethnic communities, as more disposable income, higher education, and increased likelihood of white collar employment could partially facilitate the ability to adhere to alternative (but not necessarily traditional) practices. However, despite the finding that some Asian Canadians have very high incomes, Fong and Wilkes disregard the fact that a relatively large proportion of recent immigrants and long term immigrants indeed do not have the financial capacity to access these services. The debate as to whether CAM practices
should be covered by universal health care and/or through private insurance must be situated then in the context of Canadians’ socioeconomic differences, which largely determine who is (un)able to access these services.

Further, many immigrants face a multitude of barriers (i.e., language-based, cultural differences) when they attempt to access services within the health care system (Kobayashi, 2003). CAM practices provided in their first language from immigrant practitioners play an important role for some members of these communities, as barriers to access are alleviated. Because CAM practices have not been legitimated in the same way as biomedical practices, the like-mindedness of the members of these social networks also serves to legitimate the CAM practices and ideologies that are local to that particular ethnic group within that particular community. Thus, the disjuncture and inequality between CAM’s position within mainstream society compared to that of biomedicine is somewhat ameliorated for immigrants who wish to engage in these practices. However, consistent with the concern Li (2004) expressed, there are potential costs as well, including the reality that immigrants who use CAM may experience stigma from people both outside and within their own ethnocultural community (Fink, 2002).

Other factors to be considered when exploring the health services and/or practices new immigrants use are the processes of acculturation and assimilation they undergo following their arrival in Canada. Expectations associated with assimilation and acculturation upon arrival may have the opposite effect on immigrants who might normally use CAM. For instance, new immigrants may feel the need to be “Canadian,” so they may forsake their traditional health care practices in favour of Western practices. While this may be the case in some instances, much of the literature indicates that health
services are underutilized by new immigrants and that as acculturation and assimilation progresses, health service utilization increases (Salant & Lauderdale, 2003).

Immigrants’ pattern of accessing (or not) health care soon after arrival is usually temporary. The longer they stay in Canada, the more comfortable they become accessing and using Western practices. However, the extent to which this is true for individuals depends on their level of acculturation in addition to demographic factors like age and socio-economic status, all of which are related to their immigrant category. Business class immigrants are typically well-educated, while family class immigrants tend to be less educated and may often include older parents and grandparents. There are differences in the rate and extent to which immigrants from different classes and categories assimilate upon arrival to their host country. For example, Satia-Abouta, Patterson, Kristal, Teh, and Tu (2002) found that younger, more highly educated Chinese immigrants who worked outside the home were more likely to adopt Western eating habits compared to older, less educated family members. Despite this finding, the researchers also noted that overall, cultural and health beliefs affect the dietary decisions of Chinese North Americans.

Consistent with Satia-Abouta and her colleagues (2002) findings regarding older Chinese immigrants, Chappell and Lai found that one half of the respondents in a 1998 study continue to use TCM practices post-immigration. While it may be the case that older Chinese immigrants do not use Western care or CAM exclusively, the way in which they choose which methods they want to use is a negotiated process that takes place over time.
Finally, the presence and establishment of any formal institution’s services, such as health care, increases social cohesion within the community and decreases the likelihood that people will use services outside the community, making members of an ethnic community more likely to substitute traditional ethnic practices for national practices (Breton, 1964). Two of the main measurements of institutional completeness are residential concentration and the provision of basic services, such as health care (Hedley, 1980). Because of the value and importance placed on customs, beliefs, and practices that are developed in a minority group’s country of origin, when individuals immigrate to a new place they continue to value these same customs and beliefs, setting the stage for the creation and establishment of an institutionally complete community.

Due to the unavailability of ethno-specific CAM practices in the universal health care system, members of particular visible minority communities must seek and pay for these services themselves, further marginalizing certain individuals and their practices and leading to the development of an underground system of unregulated and unlicensed care. Further, the processes involved in creating an institutionally complete community directly influence members of visible minority groups and their interpersonal relationships (Breton, 1964:198).

Through this illustration of institutionally complete communities where levels of social capital are high and levels of acculturation may be low, it is apparent that ethnicity and culture guide and influence the decisions immigrants make regarding health care. Canada’s biomedically based system has not recognized the importance of this connection, and, as a result, the individuals and institutions that provide mainstream
health care services may oftentimes be perceived to be culturally insensitive and impersonal (Fink, 2002).

Additionally, in practice, the biomedical model has developed into a social organization and culture within itself. Large institutions, such as hospitals and their administration, including doctors and nurses, develop their own culture and worldview which guide their decisions and behaviour. This is reflected in how they treat patients (Helman, 1991). According to Helman (1991), anyone going to the doctor or entering a hospital for treatment undergoes a process whereby their social and individual identities are taken from them. This is because they are separated from the familial, cultural, and religious worlds that they know and within which they feel most comfortable (Helman, 1991:1082). As previously stated, cultural identity and ethnocultural community are very important elements of an individual’s identity. Therefore, this process can be intimidating and frightening, especially for immigrants and visible minorities. Within biomedical culture, inequality and prejudice stemming from differences in gender, social class, and/or ethnicity and their intersections may be reflected in individuals’ relinquishing their identities for treatment (Helman, 1991).

Despite the importance CAM philosophies and practices play in the lives of many immigrants, people who rely on CAM may still be nervous and ashamed to tell medical doctors (and sometimes family and community members due, in part, to intergenerational differences) that they use traditional alternative forms of health care. There may be a concern that medical practitioners do not respect these health care practices, and, as a result, the patients believe they will be treated differently (Fink, 2002). Biomedicine’s reluctance to accept the value of CAM can also be perceived as a form of “medical
surveillance” (Conrad, 1992:216) in that the marginalization of these practices and beliefs works as a form of social control whereby patients feel apprehensive about disclosing their CAM use to medical doctors. Biomedicine’s general animosity towards CAM has been longstanding. This type of sentiment has been prevalent since colonial times, when laws were passed that forbade traditional healers from practicing (Fink, 2002). The present day feelings of insecurity by those who use CAM is (or at least should be) a major concern to health care professionals and the health care system. Researchers have reiterated the importance of exploring why immigrants and visible minorities use CAM so that health care professionals are better informed and able to advise and treat people accordingly (Lee, Chang, Jacobs, & Wrensch, 2002). This call for more research into why people use CAM furthers the need for insights into the reasons for its use.

Certain practices and beliefs, including ideologies regarding health, develop and become accepted within groups and societies (Hufford, 1995). As was previously articulated, it is important to consider a patient’s “culturally developed world view” to understand how they learn and think about their own health (Kakai et al., 2003:851). In Western societies, the health beliefs of visible minorities are often viewed as strange, uninformed ideas resulting from a lack of knowledge about the ‘facts’ of modern medical science (Thorne, 1993:1931). It is important then for doctors and the medical community to be aware of their patients’ health beliefs in order to provide effective diagnosis and treatment.

Patients’ health and religious beliefs strongly influence the type of care they seek in addition to how they and other members of their community treat and cope with illness (Helman, 1991). In the case of CAM use, ethnicity and immigrant status are important
factors in explaining which treatments people choose (Bair et al., 2002). Therefore, an understanding of ethnocultural minorities’ reasons for and patterns of CAM use is fundamental in order to facilitate access to health care in Canada (Pourat et al., 1999).

2.3.5 The Effects of Immigrant Status and Ethnicity on CAM Use

Until the federal Immigration Act was enacted in 1976, Canada’s immigration policies could be perceived as blatantly racist in nature as acceptance of immigrants was based entirely on country of origin (Fong & Wilkes, 2003). In 2002, Canada’s immigration policy was updated with the adoption of the Immigration and Refugee Protection Act (Citizenship & Immigration Canada, 2004). With the adoption of increasingly progressive immigration laws since 1976, Canada now admits immigrants based on “objective” standards related to human and financial capital. Factors, such as education, occupation, age, and language ability are considered. Subsequently, family members become eligible for immigrant status through sponsorship programs (Fong & Wilkes, 2003). Since the shift in policy in the mid 1970s, most individuals immigrating to Canada are from non-European countries, with the majority coming from Asia. As a result, the visible minority population in Canada has increased dramatically since the 1970s (Fong & Wilkes, 2003). According to the 2001 Census, 13.4% of Canada’s population identifies themselves as visible minority. This figure is predicted to rise to somewhere between 19 and 23% by 2017, resulting in an increasingly diverse ethnocultural landscape, with the Chinese continuing to be the largest incoming group (Statistics Canada, 2005).
People have been immigrating to Canada from China for more than a century, long before the immigration policies became more progressive and objective (White et al., 2003). During the early part of the last century, there were periods in which the Canadian government banned certain Asian groups, including the Chinese, from immigrating (Fong & Wilkes, 2003). Recent immigrants are largely unaware of the history and sacrifices that were made by Chinese immigrants who came before the points system was implemented. Despite racial discrimination in the past, Chinese immigrants from Mainland China, Hong Kong, Taiwan, and other Southeast Asian countries have continued to migrate to Canada, making Canada’s Chinese population quite heterogeneous (Citizenship and Immigration Canada, 2004). Each group has some intracultural differences as well as a unique history of migration and settlement in Canada (White et al, 2003). In addition, economic and social disposition, which is related to the immigration category (business, family, skilled-worker, or refugee) under which people arrive, may also help account for differences between groups. For these reasons, differences in levels of acculturation and the settlement patterns dependent on the institutional completeness of residential communities are to be expected. Given the relationship between acculturation, institutional completeness, and CAM use, it is expected that these differences will affect individuals’ propensity to utilize CAM as well.

New immigrants are typically healthier than the average native-born Canadian, but this phenomenon subsides over time (Gee, Kobayashi, & Prus, 2004; McDonald & Kennedy, 2004). According to McDonald and Kennedy (2004), immigrant health is important to government policymakers because of their interest in the cost and adequacy of the care that is provided. Although new immigrants should have an openness to the
adoption of practices and ideals engrained within the social system of their new country, many maintain important aspects of their culture and identity, including language, health beliefs, and health practices (Najm, Reinsch, Hoehler, & Tobis, 2003). Most people living in developing countries not only use CAM, but rely on it to meet their most basic health care needs (Fink, 2002). Even though more and more people from developing countries that do not provide universal health care migrate to Canada each year, there has been very little research examining the relationship between ethnicity and/or immigrant status and CAM use. Existing research in this area has used inconsistent definitions of CAM, remained relatively limited in scope, and produced many different findings (Struthers & Nichols, 2004). Limiting the sample to Chinese Canadians, the largest visible minority and recent immigrant group in Canada, and focusing on an ethnoculturally-relevant definition of CAM will provide a strong foundation on which to build a research program exploring the relationship between ethnicity, immigrant status, and CAM use.

Eisenberg and his colleagues' (1993; 1998) groundbreaking studies regarding CAM use trends in America found very low rates of use (reportedly 4.2% within the past year) among visible minority populations. Findings from other studies (see Millar, 1997; Bodeker & Kronenberg, 2002; Astin, 1998; McFarland et al., 2002) also suggest a substantially lower percentage of visible minority CAM users compared to Whites. However, these conclusions are, in a sense, counterintuitive as well as inconsistent with anthropological research on ethnomedicine (Mackenzie et al., 2003:51). As has already been established, because most CAM practices are rooted in health beliefs and traditions of visible minority cultures, it would only seem natural that a connection between
ethnicity and the use of particular CAM practices, such as TCM, exists (Mackenzie et al., 2003).

Some researchers believe that figures from most studies to date are significantly underestimated for a number of reasons, including low response rates, inadequate research designs, small samples, samples being limited to English-speaking households, overly-inclusive and inconsistent definitions of CAM, and problems regarding the construction and development of survey questions regarding CAM use (Hufford, 2002; Mackenzie et al., 2003; Astin, 2000). In the Canadian context, there is an underrepresentation of visible minority immigrants (particularly non-charter language speaking immigrants) in national health surveys like the NPHS (National Population Health Survey) and CCHS, possibly resulting in biased samples of visible minority groups. Therefore, findings from these studies may not be viewed as truly representative of the population of immigrants and visible minorities who use CAM.

Although few studies have adequately addressed the relationship between immigrant status, ethnicity, and CAM use, a rather comprehensive American study by Mackenzie and her colleagues (2003) is the first to have addressed this gap in the literature. The study involved the collection of data from a national probability sample with an over-sampling of ethnic minorities. In addition, they conducted the survey in six languages, thus expanding the number and diversity of people who were eligible for the study sample. Contrary to findings in previous studies, Mackenzie et al. (2003) found that CAM use did not vary by ethnicity. The study found that CAM use was equally likely among all ethnic groups that were included in the study. However, results did indicate that characteristics of users, including ethnicity, differed based on which form of
CAM was being utilized. For example, Asians were more likely to use herbal medicines and acupuncture than any other ethnic group. Similarly, African Americans were most likely to use home remedies, and Caucasians were most likely to use chiropractic care (Mackenzie, 2003). The findings indicating that Asians were more likely than any other group to use forms of traditional Chinese medicine provide some justification for focusing on these forms of CAM in the current study.

Presently, there is no Canadian equivalent to the nationally representative Mackenzie et al. (2003) study. If a similar study were conducted in Canada, the results may be very different because the diversity and proportion of immigrants and visible minorities in Canada is different from that of the United States, and due to the availability of universal health care for landed immigrants in Canada. As Mackenzie and her colleagues (2003) suggested, depending on which type of CAM and relatedly which visible minority group was being studied, results would vary. A Canadian study could improve on the Mackenzie et al. (2003) study by diversifying the ethnic groups included in the sample.

The study done by Mackenzie and her colleagues was fairly limited in its ability to capture a truly ethnoculturally diverse and representative sample in that it did not include very many ethnic minority groups, and all Asians and all Blacks were grouped into two categories respectively, thus nullifying the importance of identifying differences between certain groups. Grouping ethnicity in this way is somewhat typical of American studies in this area, and it can be argued that this is a major limitation in this research domain. Making ethnic distinctions is important because, as Struthers and Nichols (2004) highlight, Black and Asian populations prefer using remedies from their country
of origin, and presumably these remedies vary greatly between groups and countries. Moreover, the Asian American population is largely made up of immigrants, while the African American population is largely non-immigrant.

Another study, which examined CAM use among ethnic older adults, found that CAM use was quite common among this group and that older immigrants are very likely to use health practices and therapies that are familiar to them. Results also confirmed that the particular form of CAM that people use varies according to ethnicity (Najm et al., 2003). Specifically, Asians were most likely to use acupuncture and Oriental medicine, Hispanics dietary supplements and home remedies, and Whites chiropractic, massage, and vitamins (Najm et al., 2003). It seems that findings based on ethnicity and alternative medicine use largely depend on which CAM practices/modalities are included (or excluded) in a study. Therefore, future research in this area should consider CAM practices separately in order to obtain an accurate portrayal of CAM use among immigrants and visible minorities. This recommendation is taken up in the current study as its focus is on TCM, and immigrant status and time since immigration are considered key independent variables in order to get an accurate portrayal of CAM use among Chinese Canadians.

Another predictor of CAM use among visible minorities is the number of years they have lived in their new country. In Najm et al.'s (2003) study on CAM use among ethnic older adults in Orange County, California, 86.7% of those who had only been in the United States for less than a year were CAM users compared to only 45.8% of those who had lived there for more than 10 years. This indicates that time since immigration is an important factor in predicting CAM use among immigrants. Not only is it important
to know why usage declines over time, but also why individuals change their patterns of CAM usage. Perhaps the most relevant finding from the Najm (2003) study in the context of the current study, however, is that ethnic older adults are generally more likely to rely on practices and treatments they are familiar with (often CAM) rather than those of conventional biomedicine.

In a Canadian study addressing how ethnicity affects decisions regarding health care among Chinese immigrants in Toronto, findings indicate that a multitude of problems can arise when communication barriers exist between doctors and patients (Lee, Rodin, Devins, & Weiss, 2001). As a result of these barriers, many immigrants in the study who suffered from chronic fatigue and weakness relied on self-help rather than conventional medicine. Similarly, Waxler-Morrison (2002) found that male Vietnamese medical doctors in British Columbia sometimes fail to provide information or to order testing for older Vietnamese females because of cultural beliefs these doctors hold with regard to the gendered and generational nature of health care behaviour. Moreover, another study found that patients and families typically do not question the doctor because they are perceived to have knowledge and authority in terms of health and health care (Dinh, Ganesan, & Waxler-Morrison, 1990). Additionally, many of the Chinese adults from the Lee et al. (2001) study would have preferred to consult a practitioner of traditional Chinese medicine, but due to the lack of coverage of the service(s), their use of TCM was limited.

Findings from these studies speak to issues of health service funding. Despite the increase in CAM use in Canada, federal and provincial funding for these forms of therapy and health care is still limited. For example, Canadians do not have to pay when they
consult a general practitioner; however, the same cannot be said for herbalists who also serve as a type of general practitioner for certain groups. Once again, these findings confirm the need to situate the discussion regarding CAM coverage in the context of socio-economic differences among Canadians. Health care policy must address whether Canadians should have the freedom to choose which services most adequately meet their needs without incurring excessive personal financial costs. While this debate may prove difficult in an age of cutbacks, Canada’s increasing ethnocultural diversity and the need for improved culturally sensitive care require that these issues be addressed.

Finally, a number of small-scale studies have researched the relationship between ethnicity and CAM use. The study by Lee and her colleagues (2002) revealed that members of ethnic minority groups often use CAM because they are strongly influenced by cultural norms and experiences. Research in south Texas indicates that many people in this region use CAM because of their Latino culture and identity (Burge & Albright, 2002). Further research in this area is needed, as findings to date show some positive correlation between ethnicity, immigrant status, and CAM use. The current study builds on these findings within a Canadian context.

Moreover, the link between Chinese culture and the use of TCM still exists today. A limited number of studies have addressed TCM use among people of Chinese origin who have immigrated to Western countries. Ma (1999) discovered that Chinese immigrants in two major American cities were very likely to treat themselves using home remedies, and they were also fairly likely to return to their country of origin in search of care and treatment. Another study by Zhang and Verhoef (2002) concluded that when Chinese immigrants make decisions regarding disease management strategies (e.g. in this
study, arthritis), they are influenced by personal and cultural factors. The study also notes that Chinese immigrants begin with self-treatment, followed by consultations with Western doctors, and then TCM practitioners before returning to Western physicians. Chinese immigrants who participated in Lee and her colleagues’ 2001 study felt that TCM practitioners could better understand the true nature of their health concerns compared to a Western doctor. Unfortunately a major limitation of these studies is their lack of attention to the role that time since immigration plays in this relationship. Time since immigration is certainly important to consider since related factors, such as level of acculturation, have a significant effect on a Chinese immigrant’s decision to use TCM.

2.3.6 Traditional Chinese Medicine

With a history dating back more than 2000 years, traditional Chinese medicine (TCM) is a long-established form of general health care, which includes diagnosis and treatment (Ou, Huang, Hampsch-Woodill, & Flanagan, 2003). The WHO officially recognizes TCM’s ability to prevent, diagnose, treat, and cure many diseases and illnesses. Common TCM practices were developed through observation of their effects on specific ailments and/or parts of the body (Maciocia, 1989). Unlike the basic tenets of conventional biomedicine, TCM’s theory of yin-yang balance has no physical meaning and is considered to be an “incomprehensible ideology” (Ou et al., 2003:1). Given this criticism, it is not surprising that the way in which TCM approaches health and health care is acknowledged as fundamentally different from that of conventional Western medicine.
In TCM, the human body is understood using a holistic view of the universe, which is rooted in Daoism. Thus, the connection between religion and TCM is implicit in the way practitioners and even patients understand health and illness. The tenets of Daoism are largely based on observing the natural world and how it operates (Kaptchuk, 2000). Moreover, TCM has two unique theories that are central to its application and implementation: the theory of yin-yang and the theory of five elements. In addition to these theories, TCM uses the human body meridian system as the third major component that helps substantiate its overall theoretical and philosophical framework (Maciocia, 1989).

Briefly, yin and yang represent opposites within the universe (i.e. hot/cold, fast/slow, masculine/feminine, still/moving, lower/upper etc.). Yin is typically characterized by, among other things, darkness, stillness, and descent, while yang is characterized as bright, moving, ascending, and progressing. Yin and yang are opposites and are in conflict, yet they are interdependent. A person is said to be healthy when there is a dynamic balance between yin and yang within the body. Illness and disease occur when this balance is broken. This may result from an excess or deficiency of either yin or yang (Maciocia, 1989). TCM also classifies internal organs as yin or yang. This is known as the Zangfu system. While each organ is recognized as having a particular function, these organs function together and have a collective capacity beyond their physiological functions outlined in Western medicine. There are five zang or yin organs, which are all solid: the spleen, the heart, the lungs, the liver, and the kidneys. There are six fu or yang organs, which are hollow: the small intestine, the large intestine, the gall
bladder, the bladder, the stomach, and the san jiao or triple burner which is not defined in Western physiology (Maciocia, 1989).

The theory of five elements is based on a philosophical concept that is used to explain processes, functions, and other phenomena in the physical world. With regards to medicine, this theory is used to understand the relationship between the human body and the natural environment. Like yin and yang, the five elements, which include water, fire, wood, metal, and earth, are interdependent, which reflects the interconnectivity of the body and the natural environment. The interconnected promoting and restraining nature of the five elements is used to understand processes in the body. Further, each element has its own unique attributes. For example, water is characterized by moisture, cold, descending, and flowing. Fire is associated with draught, heat, flaring, ascendance, and movement, while wood is characterized by germination, extension, softness, harmony, and flexibility. Finally, metal is associated with strength, firmness, killing, and cutting, whereas earth is linked with growing, changing, nourishing, and producing. Each element is also associated with a particular season, climate, taste, colour, sound, emotion, odour, movement, sense organ, body part, and yin or yang organ (Kaptchuk, 2000).

In TCM, the human body is an energy system involving four basic vital substances, including qi (vital energy), jing (essence), blood, and body fluids. These substances are distributed throughout the body through a network of channels known as meridians. Further, there are three main causes of disharmony, which results in illness and disease. Internal causes are related to emotions, external causes are related to climatic conditions, and miscellaneous causes are related to factors, such as work, exercise, diet, and physical trauma. TCM’s diagnostic process involves four main types
of examination: looking, hearing and smelling, asking, and touching (http://www.ctema.bc.ca).

There are five main treatment modalities in Chinese medicine: (1) acupuncture and moxibustion, (2) herbal therapy, (3) tui na (massage and manipulation), (4) therapeutic exercise (tai chi, qi gong), and (5) diet therapy. It is important to note that because the process of assessing an illness or condition considers the whole person, treatment is not based entirely on symptoms, thus different people may receive different treatment(s) for the same disease or condition. Likewise, different diseases and conditions may require similar treatments (Kaptchuk, 2000).
CHAPTER 3: Research Design and Methodology

3.1 Research Questions

The main research questions for this study examine whether Chinese Canadians, a visible minority group that traditionally adheres to alternative health beliefs, are more likely to use CAM than members of other ethnic groups, and to explore their reasons for using alternative medical practices. Specifically, the study’s research questions are

(1) What is the prevalence of CAM use among Chinese Canadians?

(2) What are the key predictors of CAM use in the Chinese Canadian population?

(3) Why do Chinese Canadians use CAM? What are their experiences of having used CAM?

3.2 Research Design

This study used a mixed method research design. Mixed model studies combine qualitative and quantitative approaches in all aspects of the research process, not only in the methods stage (Tashakkori & Teddlie, 1998). Tashakkori and Teddlie (1998) argue that the mixing of quantitative and qualitative approaches throughout the research project reflects the iterative process of the research cycle more accurately. Mixed model studies emerged in the 1990s following decades of work to bridge the divide between the positivist, postpositivist, pragmatic, and constructivist paradigms (Tashakkori & Teddlie, 1998). From this, the concept of triangulation was developed to express the belief “that every method has its limitations, and multiple methods are usually needed” (Tashakkori & Teddlie, 1998:22). Particular methods can be better suited to certain types of research questions, even within the same study. Moreover, mixed model studies are becoming
increasingly more common across disciplines and within the literature as researchers recognize that different research questions require different methods (Cresswell, 2003; Tashakorri & Teddlie, 1998). This trend can also be partially attributed to more interdisciplinary research.

There are different strategies for mixed methods studies (Tashakkori & Teddlie, 1998). The current study relied on the sequential explanatory strategy. Based on this strategy, the quantitative data were collected and analyzed prior to the collection and analysis of the qualitative data from the case study interviews. The quantitative findings were used to inform question development for the case study interviews, and then the qualitative data were collected and analyzed. The sets of data were integrated after the completion of the qualitative analysis, whereupon the qualitative results were primarily used to understand and expand upon the quantitative findings. In this study, both phases of data collection and analysis were given equal priority (Cresswell, 2003; Tashakkori & Teddlie, 1998). Implicit within this strategy was the recognition that CAM practices and the health beliefs of Chinese Canadians have been marginalized in the context of the Canadian health care system.

The mixed model approach in the proposed study involved secondary analysis of data from Cycle 2.1 (2003) of the Canadian Community Health Survey (CCHS) along with in-depth, semi-structured, qualitative interviews, the basis for the case study analysis. This combination of approaches sought to produce nationally representative results on the relationship between CAM use and Chinese Canadian ethnicity through the quantitative analysis of survey data, and a more thorough understanding of the reasons
for CAM use via the case studies. In addition to providing generalizable results, this approach was time and cost effective (Babbie, 2001).

The main disadvantage of using secondary data was that I could not design my own questions (Neuman, 2004). The structured data from the CCHS were not conducive to answering the second set of research questions pertaining to Chinese Canadians’ reasons for using CAM as well as their general experiences of having used it. The CCHS also failed to include in its survey an important factor in this research, namely, the immigration category under which people arrive in Canada. As a result of these limitations, an interview component was necessary. Therefore, I decided to supplement the CCHS data with in-depth, semi-structured, case-study interviews.

Part of the rationale for the case studies was that the resulting information and themes that emerged would be indicative of how the variables in the secondary data analysis relate to underlying theoretical concepts like social capital and acculturation, which could be used to understand why Chinese Canadians use CAM. Using qualitative research to expand on quantitative findings is an emergent approach in mixed method research that has been used effectively in previous studies on health behaviours (see Waxler-Morrison, Doll, & Hislop, 1995).

It was anticipated that the statistical analysis of nationally representative data would reveal gaps and give rise to questions that I could explore further in this study. Therefore, in order to develop a deeper understanding of the reasons offered for using CAM as well as the connection between Chinese Canadian ethnicity and CAM use, I conducted two semi-structured, face-to-face interviews with Chinese Canadians who were presently using some form of CAM, specifically, a form of TCM. While a larger
number of interviews would have been preferable, conducting two case studies was
demed most appropriate given the time constraints.

Face-to-face interviewing is a good way to uncover subjective meanings about
participants' experiences (Babbie, 2001). Specifically, an exploratory, holistic, multiple-
case design was used to explore and understand why Chinese Canadians use CAM, a
complex social question (Yin, 1994). Within case study design, it is very important to
consider contextual conditions that may be relevant to the phenomenon of interest, in this
case CAM use. Two to three cases are desirable so that both literal and theoretical
replication can be tested (Yin, 1994). Theoretical propositions relating to the role that
concepts, such as acculturation, cultural understandings of health and illness, institutional
completeness, and social capital, play in respondents' propensity to use CAM were
explored in the case studies.

Multiple CAM/TCM practices were studied in order to account for possible
cultural and geographical differences between users. I was open to what people wished
to share, but I also designed questions that guided participants' responses in answering
the research question: why do Chinese Canadians use CAM? Broadly, I wanted to know
whether respondents' primary reasons for using CAM are linked to general health
maintenance or curative means. It is also important to note that the resulting information
from interviews provided richness and texture to my analysis and findings in that detailed
accounts of how respondents understand health and illness and why they use alternative
medicine emerged, which were then used to provide a more complete description of the
relationship between Chinese Canadian ethnicity and CAM use.
3.3 Quantitative Methods

To address the first aim of this study, the presentation of nationally representative findings on the relationship between Chinese Canadian ethnicity and CAM use, I analyzed data from the third wave of the CCHS, Cycle 2.1 (2003), a government data set that I accessed via Statistics Canada’s remote access services in Vancouver, BC. This dataset was particularly suitable for several reasons: it has a national probability sample, it is comprehensive, and despite their under-representation, it has a relatively large number of visible minorities so that subgroups like the Chinese can be assessed. The data set contains 16 questions pertaining to CAM use and two main questions pertaining to ethnicity as well as characterizing information on age, gender, marital status, time since immigration, census metropolitan area, sense of belonging to local community, charter language ability, education, income, presence of chronic conditions, and health status. In addition to variables needed for the main question and the subsequent entry of important blocks of variables, I also tested relevant two and three-way interactions.

3.3.1 Sampling and Data Collection

The main objective of the CCHS is “to provide timely cross-sectional estimates of health determinants, health status, and health system utilization at a sub-provincial level (health region or combination of health regions)” (http://www.statcan.ca/english/concepts/health/cycle2_1/cchsinfo.htm). Data were collected in 133 health regions across Canada and in the three territories through two separate surveys: a 45-minute health region-level survey and a 60 minute provincial-level survey, both administered in 2003 through a combination of computer-assisted and personal telephone interviews.
Cycle 2.1 of the CCHS consists of yes/no, Likert scaled, and multiple choice questions. The survey contains questions relating to 28 common content sections and 23 optional content sections, and was administered in English and French as well as a number of other languages. The sample is representative of household residents in all provinces and territories, with the exception of populations on Indian Reserves and Crown Lands, Canadian Forces Bases, and some remote areas. Individuals aged 12 years and older were eligible for the survey. Survey respondents were randomly selected using a probability sampling strategy (Statistics Canada, 2001).

3.3.2 Data Analysis

My analysis of the data was limited to the 16 questions related to CAM use, the two questions related to ethnicity, and the questions related to cultural, health, socio-demographic, and socio-economic control variables. Specifically, the CAM use variable was measured by responses to the following questions: In the past 12 months, have you seen or talked to an alternative health care provider such as an acupuncturist, homeopath or massage therapist about your physical, emotional or mental health? If yes, who did you see or talk to - Massage therapist? Acupuncturist? Homeopath or naturopath? Feldenkrais or Alexander teacher? Relaxation therapist? Biofeedback teacher? Rolfer? Herbalist? Reflexologist? Spiritual healer? Religious healer? Other? Number of consultations – Alternative health care provider? Chiropractor? The specific questions related to ethnicity, the main independent variable, included the following: People living in Canada come from many different cultural and racial backgrounds. Are [you/he/she]:

5 It is important to acknowledge that the way in which the CCHS defines and operationalizes CAM is different from how CAM was defined earlier in the literature review; the quantitative component of this study uses the CCHS's limited definition of CAM.
White, Chinese, South Asian, Black, Filipino, Latin American, Southeast Asian, Arab, West Asian, Japanese, Korean, Aboriginal, or Other (specify). In which country [were/was] [you/he/she] born? Canada, China, France, Germany, Greece, Guyana, Hong Kong, Hungary, India, Italy, Jamaica, Netherlands/Holland, Philippines, Poland, Portugal, United Kingdom, United States, Vietnam, Sri Lanka, Other – specify.

I analyzed the relationship between Chinese Canadian ethnicity and CAM use with the Statistical Package for the Social Sciences (SPSS) using logistic regression techniques. I also assessed the significance of immigrant status in explaining the likelihood of CAM use, after controlling for other previously mentioned variables. The dependent variable, CAM use, was dummy coded using “no” as the reference category. The main independent variable, ethnicity/racial origin, had 14 categories, and Chinese Canadian was compared to the rest of the Canadian population. Chinese ethnicity was coded 1 and non-Chinese ethnicity was 0. The selection of control variables to be included was informed by the literature. There were four blocks of control variables: cultural; demographic; socioeconomic; and health. Aside from ethnicity, the main independent variable, the cultural variables included time since immigration, charter language ability, census metropolitan area, and sense of belonging to local community. The rationale behind the inclusion of these variables in the “cultural block” was based on speculation that immigrants who come from countries that adhere to alternative health ideologies, such as China, and who relocate to urban areas that have at least partially institutionally complete communities may have a higher probability of using CAM compared to other Canadians.
The demographic variables tested included age, gender, and marital status, while the socioeconomic variables include education and income. According to previous studies (see Eisenberg et al., 1993; 1998; Millar, 1997; McFarland, 2002), age, gender, marital status, education, and income all have substantial effects on CAM use within the general population; therefore, I speculated that these factors may also be predictors for Canada’s Chinese population. Given the demographic profile of the Chinese, Chinese Canadians in this sample were also likely to be immigrants. The census metropolitan area variable provided a geographic marker with which to measure the level of institutional completeness in certain communities within cities. Finally, the health variables included self-reported health status and the presence of a chronic condition/illness. According to Millar (1997), Canadians are more likely to use CAM when they are suffering from a chronic illness. Presumably, if the same correlation holds for Chinese Canadians, this may provide further insight into why Chinese Canadians use CAM.

Missing cases were dealt with in numerous ways. In some instances where missing cases (including those who responded with “Not Stated”) comprised a substantial proportion of cases within the variable, they were made into a new category within the variable. Specifically, the missing cases for education and income were included as an additional category called “Missing.” The “Not Applicable” category from the time since immigration variable represents people who have not immigrated, so these cases were used to create a reference category: “Canadian-Born.” Finally, if there were few missing cases within the variable, which was the case for CAM use, ethnicity, language, census metropolitan area, sense of belonging to community, marital status, age, self-reported
health status, and presence of a chronic condition, these cases were left out of the analysis. In total, 8,827 of a possible 135,573 were not included in the analysis for an overall sample size of 126,746 for all Canadians. The sample size for the Chinese subsample was 2,146, with 179 cases of a possible 2,325 excluded. The percentage of missing cases is 6.5% and 7.7% respectively, slightly above the informal “rule” of 5.0%. The analyses were run with and without the missing cases. Since there was essentially no difference between the results, the higher proportion of missing cases was excluded to allow for a more coherent interpretation of the results.

Aside from ethnicity, time since immigration, charter language ability, census metropolitan area, sense of belonging to community, gender, marital status, education, income, self-reported health status, and presence of chronic condition were treated as categorical variables, while age was treated as a continuous variable. The time since immigration variable was coded into three categories: 0-9 years, 10+ years, and Canadian-born (reference). Charter language ability was dichotomized and coded 1 “neither English nor French” and 0 “English and/or French.” Census metropolitan area was a four category dummy variable that included “Other,” “Toronto,” “Vancouver,” and “None” as the reference. Sense of belonging to local community was a dummy variable with weak coded 1 and strong coded 0. Gender was a dichotomous variable with female coded 0 and male coded 1. Marital status was transformed into a three category dummy variable plus a reference category: married/common law, widowed, separated/divorced, and single (reference). Education and income were also dummy variables. Education was based on the highest level obtained, while income was based on the total household income from all sources. Less than high school and the highest income level were used
as reference categories. Self-reported health status was dichotomized into positive and negative (reference), while the presence of at least one chronic condition was dichotomized as yes and no (reference). Finally, age was a continuous variable ranging from 12 to 104 years.

3.4 Qualitative Methods

The qualitative interview component of this study complemented the statistical data analysis, as the data from case studies were used to help uncover Chinese Canadians’ specific motivations for and general experiences of using CAM, in addition to establishing how these reasons and motivations are related to cultural understandings of health and illness. Using an exploratory, holistic, multiple-case design within a mixed method framework, emergent themes from interviews were used to understand how key predictor variables from the quantitative findings relate to underlying theoretical concepts which could be used to understand CAM use among Chinese Canadians.

3.4.1 Sampling and Recruitment

The selection of interviewees for the case studies produced a convenience sample, so these results are not statistically generalizable to the Chinese Canadian population (Babbie, 2001; Neuman, 2004). Despite this limitation, the data from the interviews were extremely useful, as they provided insights into CAM use beyond what I could extract from the CCHS data. The first participant to be recruited was an acquaintance whom I know through familial networks. The second participant was snowballed through the first contact.
3.4.2 Data Collection

To collect qualitative data for the study, I conducted two in-depth, semi-structured, face-to-face interviews with Chinese Canadians who were presently using CAM. I performed the interviews in English, although an interpreter was necessary for one of the interviews. I took notes that described the circumstances surrounding the interview in order to contextualize the conversation (Holstein & Gubrium 1995). In addition, the interviews were audiotaped to allow for detailed analysis of the transcripts at a later time (Holstein & Gubrium, 1995). Both interviews were conducted in Richmond, BC in May 2006 at the convenience of the participants. I allowed respondents the option of being interviewed in their home or in a public setting.

Interview questions addressed each block of variables that were included in the quantitative analysis in addition to topics that are missing from the CCHS. While being open to what people found important, this somewhat structured (i.e., previously determined open-ended questions) aspect of the interviews was geared towards gaining perspective on respondents’ life histories, world views, understandings of health and illness, and personal philosophies, in addition to getting a sense of their previous experiences with conventional medicine, discovering their origin (by birth or descent), learning about their medical condition(s), finding out about their social networks, and exploring the extent to which their residential community is (if at all) institutionally complete. Other questions in the interview assessed socio-demographic characteristics, such as marital status, household composition, charter language ability, immigrant status, immigration category, and time since immigration. Probes were added as new issues and directions emerged during the interviews. In addition, observations from visits to an
herbalist and a Chinese grocery store (both in Richmond) were garnered to contextualize participants’ experience with Chinese medicine.

3.4.3 Data Analysis

Following each interview, I spent time writing and reflecting on the interview before transcribing it verbatim using the audiotaped copy. Upon the completion of the interviews, I performed a thematic analysis of the data using the straightforward coding techniques and analytic principles of grounded theory. First, I identified salient themes and concepts using open-coding techniques outlined by Glaser and Strauss (1967) and Strauss and Corbin (1990). At this stage I executed a preliminary analysis of respondents’ answers resulting in patterns, connections, and subjective meanings that were condensed based on key terms, events, and themes that emerged (Neuman, 2004; Holstein & Gubrium, 1995). Then I grouped and categorized the data in more abstract terms. Following this, I thoroughly examined the data a second time using axial coding, focusing on the coded themes and categories that emerged from open-coding, while being open to create new codes that materialized during this stage (Neuman, 2004). Axial coding allowed me to gain a preliminary understanding of the relationship between the emergent categories. Finally, I used selective coding to systematically relate the secondary categories to the core category, which served to validate the connections between categories (Strauss & Corbin, 1990:116). From this analysis, theoretical propositions as to why Chinese Canadians use CAM were confirmed through “pattern-matching” techniques (Yin, 1994:25), and a theoretical framework regarding their motivations for use emerged in addition to a picture of their experiences of CAM use.
To help ensure reliable interview data, I produced and followed an interview guide\textsuperscript{6} so that another researcher may replicate this study and produce consistent findings (Krefting, 1991). To help ensure the case study data are accurate and credible, numerous strategies were employed. In particular, methods triangulation, the comparison of qualitative data and quantitative data, was used. Since participants were willing, member-checking was used to see whether participants considered the data to be accurate. "Thick description" of the data was also used to explain the findings, and, finally, any possible bias, including the participation of an acquaintance, was clarified from the outset.

3.4.4 Ethics

Ethical approval for the interviewing aspect of the study was received from the University of Victoria's Research Ethics Board prior to the start of the study. Informed consent was required of each interviewee.\textsuperscript{7} Specifically, I spoke to potential participants about the purpose of the study, the requirements of study participants, the topics for examination, and how the data were to be used (Ritchie & Lewis, 2003). Moreover, participants had the right to withdraw from the research project at any time. I also openly discussed precautionary measures that were taken to ensure confidentiality, including the use of pseudonyms and the possibility of changing details. However, since case studies and convenience sampling were used, I informed them that complete anonymity cannot be ensured (Ritchie & Lewis, 2003). Although the overall potential for harm was relatively low, situations may have arisen that required added discretion. Health can be a sensitive topic, so in addition to being a sympathetic listener, I provided information

\textsuperscript{6} See Appendix B for a copy of the interview guide.
\textsuperscript{7} See Appendix C for a copy of the participant consent form.
regarding support services to those who may have wished to access them. Finally, all
audiotapes and transcriptions have been stored in locked file cabinets (that are only
accessible to me, the primary researcher) and will be subsequently destroyed through
demagnetization and shredding within five years following the successful completion of
my thesis.
CHAPTER 4: Quantitative Results

4.1 Sample Characteristics

Table 2 provides descriptive statistics for each study variable within the two samples: (1) all Canadians and (2) Chinese Canadians. In the sample that includes all Canadians, 12.4% of respondents report using CAM within the past year. The sample of all Canadians is 3.8% Chinese and 96.2% non-Chinese. Most respondents are Canadian-born (79.4%), while the rest are either recent (5.5%) or long-term (15.1%) immigrants. Only 2.0% of the overall sample cannot speak either English or French. The majority of respondents live in a census metropolitan area (CMA). Specifically, 16.2% of the sample lives in Toronto, 6.9% in Vancouver, and 42.2% in another CMA, while 34.7% of respondents do not live in a CMA. Almost two-thirds (63.9%) of respondents reported having a strong sense of belonging to their local community compared to only 36.1% who report a weak sense of belonging. The gender distribution is 49.3% male and 50.7% female. Over one half of respondents are either married or living common law (58.3%), while 30.0% are single, 6.7% are separated or divorced, and 5.0% are widowed. The mean age within the sample is 42.57 years. Almost one half of the sample (46.4%) has completed a post-secondary degree, while 7.6% has completed some post-secondary education, 17.8% has finished high school, and 26.1% has less than a high school education. Income ranges from low to high, where more than three quarters of respondents fall into the middle, upper-middle, and high income categories. An overwhelming majority (88.7%) self-report a positive health status (excellent, very good,
<table>
<thead>
<tr>
<th>Variables</th>
<th>All Canadians Sample</th>
<th>Chinese Only Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N = 135,573</strong></td>
<td><strong>N = 2,325</strong></td>
<td></td>
</tr>
<tr>
<td><strong>% (N)</strong></td>
<td><strong>% (N)</strong></td>
<td></td>
</tr>
<tr>
<td>CAM use</td>
<td>12.4% (16,774)</td>
<td>14.9% (345)</td>
</tr>
<tr>
<td>Yes</td>
<td>87.6% (118,720)</td>
<td>85.1% (1,978)</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>3.8% (4,930)</td>
<td>100.0% (2,325)</td>
</tr>
<tr>
<td>Chinese</td>
<td>96.2% (126,307)</td>
<td>0.0% (0)</td>
</tr>
<tr>
<td>Non-Chinese</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Since Immigration</td>
<td>5.5% (7,189)</td>
<td>31.6% (726)</td>
</tr>
<tr>
<td>0-9 Years</td>
<td>15.1% (19,860)</td>
<td>48.4% (1,112)</td>
</tr>
<tr>
<td>10+ Years</td>
<td>79.4% (104,167)</td>
<td>20.0% (461)</td>
</tr>
<tr>
<td>Canadian Born</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>98.0% (128,837)</td>
<td>80.9% (1,882)</td>
</tr>
<tr>
<td>English/French</td>
<td>2.0% (2663)</td>
<td>19.1% (443)</td>
</tr>
<tr>
<td>No English/French</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Census Metropolitan Area</td>
<td>42.2% (57,257)</td>
<td>20.6% (479)</td>
</tr>
<tr>
<td>Other</td>
<td>16.2% (21,922)</td>
<td>42.2% (982)</td>
</tr>
<tr>
<td>Toronto</td>
<td>6.9% (9,403)</td>
<td>34.5% (802)</td>
</tr>
<tr>
<td>Vancouver</td>
<td>34.7% (46,990)</td>
<td>2.7% (63)</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sense of Belonging to Community</td>
<td>36.1% (47,224)</td>
<td>46.2% (1,018)</td>
</tr>
<tr>
<td>Weak</td>
<td>63.9% (83,485)</td>
<td>53.8% (1,183)</td>
</tr>
<tr>
<td>Strong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>49.3% (66,773)</td>
<td>47.9% (1,115)</td>
</tr>
<tr>
<td>Male</td>
<td>50.7% (68,800)</td>
<td>52.1% (1,210)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td>58.3% (78,972)</td>
<td>57.6% (1,337)</td>
</tr>
<tr>
<td>Married/Common Law</td>
<td>5.0% (6,779)</td>
<td>3.4% (78)</td>
</tr>
<tr>
<td>Widowed</td>
<td>6.7% (9,013)</td>
<td>2.8% (66)</td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>30.0% (40,593)</td>
<td>36.2% (840)</td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>46.4% (62,960)</td>
<td>46.4% (1,078)</td>
</tr>
<tr>
<td>Post-Secondary</td>
<td>7.6% (10,272)</td>
<td>8.8% (204)</td>
</tr>
<tr>
<td>Some Post-Secondary</td>
<td>17.8% (24,123)</td>
<td>19.9% (463)</td>
</tr>
<tr>
<td>High School</td>
<td>26.1% (35,376)</td>
<td>21.8% (506)</td>
</tr>
<tr>
<td>Missing</td>
<td>2.1% (2,842)</td>
<td>3.2% (75)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>2.4% (3,213)</td>
<td>5.3% (124)</td>
</tr>
<tr>
<td>Lower-middle</td>
<td>5.2% (7,007)</td>
<td>7.3% (170)</td>
</tr>
<tr>
<td>Middle</td>
<td>16.5% (22,308)</td>
<td>19.5% (452)</td>
</tr>
<tr>
<td>Upper-middle</td>
<td>28.6% (38,782)</td>
<td>23.7% (552)</td>
</tr>
<tr>
<td>High</td>
<td>30.5% (41,417)</td>
<td>22.9% (533)</td>
</tr>
<tr>
<td>Missing</td>
<td>16.9% (22,845)</td>
<td>21.2% (493)</td>
</tr>
<tr>
<td>Age</td>
<td>42.57 (12-104)</td>
<td>39.18 (12-96)</td>
</tr>
<tr>
<td>Self-reported Health Status</td>
<td>88.7% (120,111)</td>
<td>86.9% (2,021)</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Positive</td>
<td>11.3% (15,369)</td>
<td>13.1% (304)</td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chronic Condition</th>
<th>68.6% (92,757)</th>
<th>53.5% (1,234)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31.4% (42,417)</td>
<td>46.5% (1,071)</td>
</tr>
</tbody>
</table>

In contrast, the distributions for each variable in the Chinese Canadian sample are quite different from those in the all Canadian sample. For example, 14.9% of Chinese Canadians used some form of CAM within the past year. This is higher than the reported use among all Canadians. The three most common CAM modalities among Chinese Canadians are acupuncture, massage therapy, and herbalists. Unlike the sample that includes all Canadians, most of the people in the Chinese Canadian sample are immigrants: 31.6% are recent immigrants, 48.4% are long term immigrants, and only 20.0% are Canadian-born. A large majority (over 97.0%) of Chinese Canadians sampled live in a CMA, with most reportedly living in Toronto (42.2%) and Vancouver (34.5%). Chinese Canadians’ sense of belonging to their local community is split almost evenly with 53.8% reporting a strong sense of belonging compared to 46.2% who report a weak sense of belonging. The Chinese sample has more women (52.1%) than men (47.9%). Similar to the overall Canadian sample, most Chinese Canadians are either married/living common law (57.6%) or single (36.2%). The average age within the Chinese Canadian sample is 39.18 years. The education distribution is also very similar to that of the overall Canadian sample. Most people have a post-secondary education (46.4%), while 21.8% have less than a high school diploma, 19.9% are high school graduates, and 8.8% have completed some post-secondary education. Similarly, most Chinese Canadians have middle, upper-middle, or high incomes. However, the proportion of Chinese
Canadians in the low (5.3%) and lower-middle (7.3%) income range is considerably higher than the overall Canadian sample. The distributions for the health variables are also similar. A large majority of Chinese Canadians self-report having a positive health status (86.9%), while 13.1% report having a negative health status. However, 53.5% of Chinese Canadians within the sample suffer from at least one chronic illness. This is substantially lower than the overall Canadian sample (68.6%).

4.2 CAM Use among All Canadians

Table 3 presents the logistic regression results from the analysis of CAM use within the Canadian population. The logistic regression analyses support the main hypothesis that Chinese Canadians are more likely to use CAM than non-Chinese Canadians, even after controlling for cultural, socio-demographic, socio-economic, and health status differences. Indeed, Chinese Canadians are more than 1.5 times more likely (p=0.000) to report having consulted an alternative health care provider than non-Chinese Canadians.

The cultural variables also affect respondents’ likelihood of using CAM. Within the overall Canadian population, immigrants are less likely to use CAM than Canadian-born respondents. Interestingly, longer term immigrants likelihood of using CAM (OR=0.77; p=0.000) more closely resembles that of Canadian-born people compared to recent immigrants (OR=0.51; p=0.000). Aside from respondents who reside in Vancouver, living in a census metropolitan area (CMA) does not have a significant effect on predicting CAM use. Vancouverites are 1.2 times more likely (p=0.000) than people who do not reside in a CMA to report having used CAM; however, language and sense
<table>
<thead>
<tr>
<th>Source I of the Table</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>1.24*</td>
<td>1.44*</td>
<td>1.50*</td>
<td>1.58*</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.14, 1.34)</td>
<td>(1.31, 1.58)</td>
<td>(1.37, 1.65)</td>
<td>(1.43, 1.74)</td>
</tr>
<tr>
<td>Non-Chinese</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Time Since Immigration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-9 years</td>
<td>0.47*</td>
<td>0.46*</td>
<td>0.51*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.42, 0.51)</td>
<td>(0.42, 0.51)</td>
<td>(0.46, 0.56)</td>
<td></td>
</tr>
<tr>
<td>10+ years</td>
<td>0.76*</td>
<td>0.75*</td>
<td>0.77*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.72, 0.80)</td>
<td>(0.71, 0.80)</td>
<td>(0.73, 0.81)</td>
<td></td>
</tr>
<tr>
<td>Canadian Born</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither English and/or French</td>
<td>0.93</td>
<td>1.34*</td>
<td>1.36*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.81, 1.08)</td>
<td>(1.16, 1.56)</td>
<td>(1.17, 1.58)</td>
<td></td>
</tr>
<tr>
<td>English and/or French</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Census Metropolitan Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.18*</td>
<td>1.05*</td>
<td>1.05*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.14, 1.23)</td>
<td>(1.01, 1.09)</td>
<td>(1.01, 1.09)</td>
<td></td>
</tr>
<tr>
<td>Toronto</td>
<td>1.17*</td>
<td>1.00</td>
<td>0.98</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.11, 1.24)</td>
<td>(0.94, 1.05)</td>
<td>(0.93, 1.04)</td>
<td></td>
</tr>
<tr>
<td>Vancouver</td>
<td>1.39*</td>
<td>1.21*</td>
<td>1.20*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.29, 1.49)</td>
<td>(1.13, 1.30)</td>
<td>(1.12, 1.29)</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Sense of Belonging to Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>1.07*</td>
<td>1.04*</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.04, 1.11)</td>
<td>(1.00, 1.08)</td>
<td>(0.99, 1.06)</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.45*</td>
<td>0.47*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.44, 0.47)</td>
<td>(0.45, 0.49)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Common Law</td>
<td>0.98</td>
<td>0.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.93, 1.04)</td>
<td>(0.94, 1.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>0.92</td>
<td>0.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.80, 1.04)</td>
<td>(0.82, 1.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>1.13*</td>
<td>1.12*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.04, 1.22)</td>
<td>(1.04, 1.22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1.66*</td>
<td>1.70*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.44, 1.91)</td>
<td>(1.47, 1.96)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Secondary Graduate</td>
<td>2.10*</td>
<td>2.14*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.98, 2.22)</td>
<td>(2.02, 2.26)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
of belonging to community do not have a significant effect on predicting CAM use.

Socio-demographic and socio-economic factors also play a key role in predicting CAM use. Specifically, men (OR=0.47; p=0.000) are far less likely to use CAM than women. The likelihood of using CAM also increases as respondents’ level of education increases. That is, post-secondary graduates (OR=2.14; p=0.000), people with some post
secondary education (OR=1.69; p=0.000), and high school graduates (OR=1.39; p=0.000) are all considerably more likely to report having used CAM than respondents who have less than a high school diploma. Correspondingly, higher income also results in a greater likelihood of using CAM. Lower income (OR=0.48; p=0.000), lower middle income (OR=0.54; p=0.000), middle income (OR=0.63; p=0.000), and upper middle income (OR=0.80; 0.000) respondents all have lower odds of using CAM than respondents from the highest income category. The age squared coefficient indicates that the effect of age is non-linear, with CAM use peaking between 40 and 55 years of age. Marital status is not a significant predictor of CAM use.

Respondents who self-reported a positive health status (OR=0.86; p=0.000) are less likely to use CAM than those who reported having a negative health status. In addition to these findings, people suffering from at least one chronic condition (OR=1.70; 0.000) are considerably more likely to report having used CAM than people who do not have any chronic conditions.

4.3 CAM Use among Chinese Canadians

Table 4 presents logistic regression results from the analysis of CAM use among Chinese Canadians. While some of the cultural variables, including time since immigration and language, are not statistically significant, sense of belonging to local community and living in one of two major CMAs are key predictors of use. Chinese Canadians who have a weak sense of belonging to community (OR=0.75; p=0.036) are less likely to use CAM than Chinese respondents who feel strongly connected. Further, Chinese who reside in Toronto (OR=2.74; p=0.055) or Vancouver (OR=3.40; p=0.021)
are substantially more likely to use CAM than Chinese Canadians who do not live in a CMA.

TABLE 4:
Odds ratios for CAM use for Chinese Canadians by cultural, socio-demographic, SES, and health status controls

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Since Immigration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-9 years</td>
<td>1.37</td>
<td>0.86</td>
<td>0.93</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.92, 2.04)</td>
<td>(0.55, 1.35)</td>
<td>(0.59, 1.47)</td>
</tr>
<tr>
<td>10+ years</td>
<td>1.98*</td>
<td>1.06</td>
<td>1.06</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.38, 2.85)</td>
<td>(0.70, 1.61)</td>
<td>(0.70, 1.62)</td>
</tr>
<tr>
<td>Canadian Born</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither English and/or French</td>
<td>1.07</td>
<td>1.01</td>
<td>0.99</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.79, 1.46)</td>
<td>(0.70, 1.45)</td>
<td>(0.68, 1.44)</td>
</tr>
<tr>
<td>English and/or French</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Census Metropolitan Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.55</td>
<td>1.81</td>
<td>1.83</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.56, 4.35)</td>
<td>(0.63, 5.16)</td>
<td>(0.64, 5.26)</td>
</tr>
<tr>
<td>Toronto</td>
<td>2.10</td>
<td>2.66</td>
<td>2.74</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.77, 5.70)</td>
<td>(0.96, 7.39)</td>
<td>(0.98, 7.67)</td>
</tr>
<tr>
<td>Vancouver</td>
<td>2.74*</td>
<td>3.25*</td>
<td>3.36*</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.01, 7.46)</td>
<td>(1.17, 9.06)</td>
<td>(1.20, 9.42)</td>
</tr>
<tr>
<td>None</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Sense of Belonging to Community</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>0.74*</td>
<td>0.77</td>
<td>0.75*</td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.58, 0.95)</td>
<td>(0.60, 1.00)</td>
<td>(0.58, 0.98)</td>
</tr>
<tr>
<td>Strong</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.46*</td>
<td>0.48*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.36, 0.60)</td>
<td>(0.37, 0.63)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Common Law</td>
<td>1.20</td>
<td>1.18</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.77, 1.88)</td>
<td>(0.75, 1.86)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>2.45</td>
<td>2.34</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.95, 6.31)</td>
<td>(0.90, 6.05)</td>
<td></td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>1.47</td>
<td>1.42</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.72, 3.02)</td>
<td>(0.68, 2.95)</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>2.43*</td>
<td>2.82*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.16, 5.11)</td>
<td>(1.33, 5.96)</td>
<td></td>
</tr>
<tr>
<td>Post Secondary Graduate</td>
<td>1.39</td>
<td>1.49</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.91, 2.12)</td>
<td>(0.97, 2.29)</td>
<td></td>
</tr>
<tr>
<td>Some Post Secondary</td>
<td>0.91</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(95% C.I.)</td>
<td>(95% C.I.)</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>1.85*</td>
<td>2.00*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.19, 2.87)</td>
<td>(1.28, 3.11)</td>
<td></td>
</tr>
<tr>
<td>&lt; High School</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0.97</td>
<td>0.98</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.64, 1.49)</td>
<td>(0.64, 1.51)</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>0.65</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.31, 1.38)</td>
<td>(0.31, 1.40)</td>
<td></td>
</tr>
<tr>
<td>Lower Middle</td>
<td>1.44</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.85, 2.43)</td>
<td>(0.85, 2.47)</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>0.95</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(0.63, 1.42)</td>
<td>(0.63, 1.43)</td>
<td></td>
</tr>
<tr>
<td>Upper Middle</td>
<td>1.45*</td>
<td>1.50*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>(1.01, 2.09)</td>
<td>(1.04, 2.15)</td>
<td></td>
</tr>
<tr>
<td>Highest</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td>1.13*</td>
<td>1.13*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.07, 1.20)</td>
<td>(1.06, 1.20)</td>
<td></td>
</tr>
<tr>
<td><strong>Age Squared</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Self Reported Health Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td></td>
<td>0.67*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td></td>
<td>(0.46, 0.97)</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td><strong>Chronic Condition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>1.64*</td>
<td></td>
</tr>
<tr>
<td>(95% C.I.)</td>
<td></td>
<td>(1.24, 2.17)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

|                                |            |            |
| Model Chi-Square               | 0.000      | 0.000      |
| Cox & Snell R-Square           | 0.018      | 0.071      |
| Nagelkerke R-Square            | 0.033      | 0.126      |

|                                |            |            |
| N=                             | 2,168      | 2,164      |

Similar to the cultural variables, many of the socio-demographic and socio-economic variables are not statistically significant predictors of CAM use among the Chinese Canadian population. Marital status, education (with the exception of high school graduates), and income are not statistically significant. In contrast, gender is an important predictor of CAM use. Chinese men (OR=0.48; p=0.000) are much less likely to use CAM than women, which is consistent with the findings from the larger sample.
with all Canadians. Again, the effect of age is non-linear with Chinese Canadians use of CAM peaking between the ages of 50 and 65 years.

Akin to the results for all Canadians, having a positive self-reported health status (OR=0.67; p=0.033) lowers the odds of using, while the presence of a chronic condition increases a Chinese respondent’s likelihood of using CAM more than 1.6 times (p=0.001). In sum, the key predictors of CAM use among the Chinese Canadian population are feeling a strong sense of belonging to local community, living in a census metropolitan area, specifically either Toronto or Vancouver, being female, being between 50 and 65 years of age, having a negative health status, and suffering from at least one chronic condition.

4.4 Interaction Results

There are two statistically significant three-way interactions from the sample of all Canadians that are particularly relevant to this study. Both models are significant at the p<0.001 level.

4.4.1 Ethnicity*Time Since Immigration*Gender

Consistent with earlier findings from the full model in the all Canadian sample, the three-way interaction between ethnicity, time since immigration, and gender confirmed that Chinese Canadians have considerably higher odds of using CAM than non-Chinese Canadians; in addition, it also establishes that women are much more likely to use CAM than men in both the Chinese Canadian and non-Chinese Canadian population. However, the interaction also reveals that this gender difference is much
more apparent among Chinese Canadians, especially for immigrants. Immigrant Chinese women have substantially higher odds of using CAM than any other group, including non-Chinese immigrants and both Chinese and non-Chinese Canadian-born respondents.\footnote{It should be noted that the odds ratios from the interaction between ethnicity, time since immigration, and gender should be interpreted using non-Chinese, Canadian-born women as the reference group. Their odds ratio is 1.00.} Specifically, for recent Chinese immigrants, the difference between males (0.45) and females (1.21) is 0.76. Within the non-Chinese population of recent immigrants, this difference is marginal, with men (0.24) remaining less likely to report having used CAM than women (0.39). This gender difference is even more apparent among long-term Chinese immigrants, where women have odds of 1.48 compared to 0.59 for men. Finally, one other interesting difference is that CAM use differs very little between Canadian-
born male and female Chinese. Conversely, non-Chinese Canadian-born men and women differ substantially, with women (1.00) being far more likely than men (0.46) to have reported using CAM.

4.4.2 Ethnicity*Census Metropolitan Area*Sense of Belonging to Local Community

The results from the interaction between ethnicity, census metropolitan area, and sense of belonging to local community are interesting in the context of the literature on ethnicity and social capital.\(^9\) Having a strong sense of belonging to the local community has more of an effect on Chinese Canadians living in either Toronto or Vancouver compared to any other group. In fact, Chinese Canadians who feel strongly connected to their communities and who live in Vancouver have the highest odds of using CAM (2.78), while those with the same characteristics who live in Toronto also have very high odds (2.23). Subsequently, Chinese Canadians who feel weakly connected to their communities have much lower odds of using CAM, especially if they reside outside of either Toronto or Vancouver. Interestingly, sense of belonging to the local community does not seem to have much of an effect on the likelihood of CAM use among non-Chinese Canadians. In fact, in some cases, non-Chinese Canadians who feel weakly connected to their local community have slightly higher odds of using CAM than their strongly connected counterparts.

---

\(^9\) Odds ratios for this interaction, between ethnicity, time since immigration, and sense of belonging to the local community, should be interpreted in reference to non-Chinese Canadians who have a strong sense of belonging to their local community and who do not live in a census metropolitan area. They have an odds ratio of 1.00.
4.5 Discussion of Quantitative Results

The purpose of the quantitative component of this study was to discern whether Chinese Canadians were more likely to use complementary and alternative medicine than non-Chinese Canadians in addition to establishing some of the key predictors of CAM use within this population. While some preliminary interpretation of the quantitative results is done here, it is expected that a more comprehensive picture of Chinese Canadians’ experience of using alternative medicine will emerge when the quantitative and qualitative findings are integrated in Chapter 6.
Once again, the results clearly indicate that there is, in fact, a correlation between Chinese Canadian ethnicity and the use of complementary and alternative medicine. Much insight into the key predictors of CAM use was garnered through the analysis as well. While there is congruence across some of the key predictors for Chinese and non-Chinese Canadians, there are notable differences as well. CAM use varies for Chinese Canadians and non-Chinese Canadians according to cultural, socio-demographic, and socio-economic factors.

Although Chinese Canadians are more likely to use alternative medicine than non-Chinese Canadians, ethnicity alone may not be able to entirely account for this difference. Cultural factors relating to ethnicity begin to account for this discrepancy. The fact that two of the top three (acupuncture and herbalist) CAM modalities used by Chinese Canadians are rooted in traditional Chinese medicine speaks to the cultural aspect of use. Further, length of time since immigration and charter language ability are not statistically significant predictors of CAM use for Chinese Canadians. This is somewhat surprising given that two other culturally related variables in census metropolitan area and sense of belonging to community are, in fact, key predictors of use among Chinese Canadians. However, time since immigration is significant for Chinese Canadians until the socio-demographic and socio-economic control variables are added to the model. This lack of statistical significance may be the result of more salient predictors, such as cultural variables like census metropolitan area and sense of belonging to community, and a relatively small sample size of Chinese Canadians, especially Canadian-born Chinese. Further, the inability to converse in either English or French may have resulted in the exclusion of many potential ethnic Chinese participants from the
CCHS. Knowledge of their exclusion is important given that language (in)ability is paramount in being able to access health care within Canada's universal system.

Consistent with the literature regarding the relationship between institutional completeness and social capital, Chinese Canadians who live in Toronto or Vancouver and who feel strongly connected to their local communities have higher odds of using CAM. This may indicate that compared to other parts of Canada, Toronto and Vancouver have more institutionally complete communities within their greater metropolitan areas for Chinese Canadians. Specifically, this could mean that CAM services are more readily available and that use of them is more socially acceptable, at least within the relatively large number of Chinese Canadian communities in these two cities. This possible explanation is further confirmed by the fact that these two variables, living in a CMA and feeling connected to local community, are not nearly as vital in predicting CAM use among non-Chinese Canadians. Finally, since very little research in the area of CAM has focused on utilization patterns among ethnocultural minorities, it is extremely difficult to verify these findings with previous research. Data from the case study interviews will help us to make sense of these findings.

With respect to socio-demographic and socio-economic variables functioning as predictors of CAM use, the current study's findings from the analysis of the overall Canadian population corroborate major findings from previous studies (see Eisenberg et al., 1993; 1998; Millar, 1997). Specifically, the study found that users tend to be women who have a relatively high education and income. On average, Canadian users (40-55 years) tend to be slightly younger than Chinese Canadian users (50-65 years). Regardless of ethnicity, women are more likely to use CAM than men. This is consistent with
findings from previous studies, which conclude that women tend to utilize health care services more than men (Segall & Chappell, 2000). While both Chinese and non-Chinese women are more likely to use CAM than men, gender is the only demographic variable that is common to both the overall Canadian sample and the Chinese Canadian sample. Unlike findings from previous studies and the overall Canadian sample in this study, income and education are not key predictors of CAM use for Chinese Canadians. While this may be a function of the relatively small sample size, ultimately interviews are helpful in making sense of this finding. Nonetheless, because adherence to traditional forms of Chinese medicine is generally accepted within the Chinese community and given the cultural importance of maintaining traditional values and beliefs, perhaps the relative unimportance of education and income – two key predictors for typical Western CAM users – can be explained by the fact that other predictors related to culture are more salient for the Chinese. For non-Chinese Canadians, the decision to consult an alternative medical practitioner may largely depend on their financial ability to do so; however, the same consideration may not be as important for Chinese Canadians. This is logical given that health beliefs have a major impact on the type of care people seek (Helman, 1991).

As a predictor, the role of health status appears to be similar for respondents from both samples, as negative self-reported health status and the presence of a chronic condition increase the likelihood of using CAM. This speaks to the overall importance of health status (both subjective and objective) regardless of other factors.

Finally, the significant three-way interactions indicate that certain identity markers must be combined for their full predictive value to be revealed. The interactions allow
for deeper insights into how specific variables operate in predicting CAM use in addition to providing preliminary insight into Chinese Canadians' reasons for use.

The interaction between ethnicity, time since immigration, and gender indicates that Chinese immigrant women are more likely to use CAM than all males, non-Chinese females, and all those who are Canadian-born. Interestingly, time since immigration was not statistically significant within the Chinese sample, which can be partially attributed to the interaction between the three variables since gender and ethnicity appear to be extremely important in predicting CAM use. Chinese immigrant women may be more likely to hold alternative health beliefs that are more consistent with health care practitioners in countries like China, Hong Kong, or Taiwan where more people are exposed to "alternative" health beliefs. If so, this interaction demonstrates that these women may be more inclined to use a combination of CAM and Western medicine.

The second interaction between ethnicity, census metropolitan area, and sense of belonging to community is also very interesting and complex. Chinese respondents who live in either Toronto or Vancouver and who feel strongly connected to their local community are substantially more likely to use alternative medicine than non-Chinese respondents as well as Chinese respondents who feel weakly connected to their community or who do not reside in either Toronto or Vancouver. This interaction demonstrates that having a strong sense of belonging to community only results in higher odds of CAM use for Chinese respondents who live in either Toronto or Vancouver. Perhaps Chinese respondents living in partially institutionally complete ethnic enclaves in Toronto and Vancouver have higher levels of social capital which translates into feeling more connected to their communities and an increased sense of support by friends and
family members to use alternative services. These speculations require further exploration via other exploratory techniques such as in-depth interviews. The resulting qualitative data can be used to expound upon these preliminary interpretations to paint a more comprehensive picture of utilization patterns, experiences, and reasons for use among Canada’s Chinese population.
CHAPTER 5: Qualitative Findings

The purpose of the case study interviews was to explore the reasons and motivations behind the use of complementary and alternative medicine among Chinese Canadians. In keeping with a narrative style, the findings from the two interviews represent a complete record of the participants’ experiences of and reasons for using CAM. Following brief profiles about the interview participants, vital background information is documented through accounts of their experiences with Western medicine and the decision-making process involved in choosing Western or Chinese medicine when experiencing a health problem. Establishing this context allows for the study’s research questions to be adequately addressed through accounts of their experiences with and motivations for using alternative medicine.

5.1 Case Descriptions

The first participant is Jing Li\(^{10}\), a woman in her mid 50s, who emigrated from Taiwan to Canada approximately one year ago and is now a landed immigrant. Prior to receiving landed immigrant status, Jing Li had been in and out of Canada as a visitor for the past ten years. Her family entered Canada under the investment category of business immigration. She lives in Richmond, BC with her husband and one son, while her other son and her parents still live in Taiwan. Richmond, which was described in detail earlier, has been described as an ethnic enclave for Chinese Canadians because it hosts many immigrants and its population is almost 40% Chinese. Because one of her sons and her parents still live in Taiwan, she plans to return approximately once a year. She

\(^{10}\) Pseudonyms have been used to protect the identities of the study participants.
characterizes her own health as good, although she has had surgery and a few minor health problems in recent years. Jing Li uses different forms of Chinese medicine, including herbal remedies, acupuncture, and qi gong, a form of Chinese medicine that involves various breathing patterns and physical postures and motions. She has not used any other forms of CAM.

The interview took place at Jing Li’s home. A family friend served as a translator for the interview since Jing Li cannot speak English fluently. Upon arrival, she provided us with indoor slippers as is common in Asian culture, and led us upstairs to the dining room where she had prepared tea and fruit. The interview lasted approximately two hours.

The second participant is Bill who was born in Shanghai, China before he, his parents and four siblings moved to Canada roughly 38 years ago after brief stays in Hong Kong and Japan. His family was sponsored by a friend who owned a restaurant in Vancouver at the time. He has yet to return to China but would like to someday. Presently, Bill, who is in his late 50s, lives with his wife, Laura, in a townhouse in Richmond, BC. He also characterizes his health as good, but he suffers from high blood pressure and sleep apnea. Bill visits a Chinese herbalist fairly regularly. Occasionally he consults an acupuncturist and a qi gong practitioner. While Bill and his wife have been open to other forms of alternative medicine in the past, they rely mainly on Chinese medicine for alternative care.

Bill and his wife, Laura, were both present for the interview which took place at their house. While the interview focused on Bill’s experience with alternative medicine, Laura also participated in the conversation. The setting was very comfortable and the
mood was relaxed. We were seated at their kitchen table where we snacked on melon seeds and peanuts and drank jasmine tea. The interview lasted just over two hours.

I will contextualize Jing Li and Bill’s use of Chinese medicine by discussing their general experience with Western medicine and examining their decisions to consult a Chinese health provider or a conventional medical doctor.

5.2 Experience with Western Medicine

Consistent with findings from previous studies (see Eisenberg et al., 1993; Millar, 1997), the participants used a combination of both Chinese and Western medicine while residing in Taiwan, Hong Kong, Japan, and Canada. In Canada, both participants reported having a generally positive experience with Western medicine although Bill and Laura described a few negative encounters with Western doctors who simply wanted them to trust their judgement and not ask questions. In one instance, a specialist became visibly upset with them after they informed him of their decision to try an alternate treatment for Bill’s sleep apnea. Although in Canada for more than a year, Jing Li still has not found a family doctor, and thus uses walk-in clinics. She also needs to bring her son to serve as a translator. She finds it more difficult to access Western care in Canada than in Taiwan.

While the use of both alternative and Western medicine is quite common, one participant failed to report her CAM use to her family doctor. Bill and Jing Li differed in this regard, which could be explained by different levels of acculturation. Bill, who has been in Canada for more than 35 years, did not talk about his use of Chinese medicine with his previous family doctor, but he does with his current physician whom he has
consulted for a number of years. Bill and Laura feel that it is important that their family
doctor knows that they use Chinese medicine, particularly since he is more accepting of
alternative medicine because of his familiarity with Asian culture. Bill’s wife Laura
described it like this:

    Now I don’t know if this makes any difference, but he is Japanese, and he is
    the third generation in Canada, you know. So to him, it’s still that the culture
    of Japan is in his blood, so he knows about all this, right?\(^\text{11}\)

Therefore, aside from their increased level of acculturation, a second possible explanation
for Bill and Laura’s willingness to disclose their use of Chinese medicine is the degree of
receptivity of their current physician. Clearly cultural sensitivity is very important to
them when it comes to their family doctor. His openness makes them feel more
comfortable divulging information about CAM use, which is important so that medical
complications may be avoided and Bill and Laura’s health beliefs are validated.

In contrast, Jing Li has not informed any of her Canadian doctors that she
occasionally utilizes Chinese medicine because she feels they would not understand. She
recognizes that Canada’s health care system and its physicians are different. In Taiwan,
where Chinese and Western doctors work together in hospitals, Western physicians know
that many people use Chinese medicine as well; however, in Canada, this is not
necessarily the case. In China and Taiwan, Chinese medicine and Western medicine are
each recognized for their respective strengths, so most people are exposed to both styles
of care and are able to reconcile the use of both, presumably even Western doctors.

\(^{11}\) Minor changes have been made to transcript accounts where necessary to avoid confusion because of
grammatical errors. However, some trivial errors have purposely been left to capture the essence of the
responses.
5.3 Decision to use Chinese vs. Western Medicine

In Kelner and Wellman's 1997 study on the decision-making process in choosing to use CAM one of the major reasons participants gave was feeling disgruntled with conventional medicine. By contrast, discontentment with Western medicine was not a key motivation to use alternative medicine for either participant. Both Bill and Jing Li spoke about the value of both Western and alternative medicine, depending on the health problem. This recognition of the value of both coupled with the fact that Bill and Jing Li have used Chinese medicine while undergoing Western treatment illustrates and reiterates that the nature of the two systems should be conceived of as existing along a continuum rather than a dichotomy. Nonetheless, their decision regarding which type of care to use was based on their symptoms and how ill they felt and what type of symptoms they were experiencing. For severe, acute problems they deemed serious and problems that required immediate relief, both participants said they consulted Western doctors. For example, when Jing Li required surgery, she had to consult a Western physician. She felt that the problem she was experiencing was serious, so she went to a Western doctor who recommended that she have surgery. Bill uses Western medication to treat high blood pressure because it could prevent a stroke. Even his herbalist supports his use of Western medication for this particular problem.

On the other hand, Jing Li and Bill prefer to treat underlying, ongoing, core problems, including minor chronic conditions and "unknowns" which are general problems they cannot attribute to anything in particular, with alternative medicine. Both feel that Western medicine is unequipped to provide relief or a cure for these conditions.
For example, after surgery, Jing Li experienced poor circulation. As reported by the translator, she said:

Her hands and feet are always cold. Well you can’t find a Western medicine that will make her hands and feet warm, but Chinese medicine will.

Similarly, Bill said he consults a Chinese herbalist rather than a Western doctor when he has the flu.

Bill: Before I associate with Chinese medicine, that is the herbalist, I tried to go see the Western doctor and the Western doctor says go home, drink lots of fluids, and if you have a fever, take some aspirin, and rest.

Laura: It doesn’t work!

Bill: …So I start to go see one of the herbalists and he just gave me a package already – well, he put everything into one package and gave me two packages, and I took one package, used it twice, and the following day I’m fine! I can work! I can function! Overnight!!!

The decision to use alternative medicine or Western medicine is not always clear cut, however. For example, Bill has switched back and forth from Western physicians to alternative practitioners because the treatment for his sleep apnea is not effective or because he does not like the side effects from the Western treatment. He has consulted a Chinese herbalist who provided herbal remedies, a Western sleep specialist who suggested a sleep apnea machine, an acupuncturist whose treatment only lasts a few days, and finally another Western physician who prescribed sleeping pills. Although Bill finds the sleeping pills are effective, he does not want to take pills for the rest of his life if there is another option. It is also important to note here that both participants consider Chinese medicine as “alternative” medicine, that is, alternative to Western medicine, which is viewed as their primary form of care. Thus far, Jing Li and Bill’s stories have specified when they would consult an alternative practitioner, but the main research question has yet to be adequately answered. Why do Chinese Canadians use alternative medicine?
5.4 Reasons for CAM use

Four major themes emerged from the interviews that begin to tell the story of why Chinese Canadians use alternative medicine. These four themes include the following: (1) traditional understandings of health and illness, (2) views about the effectiveness of Chinese medicine, (3) acceptance of use by friends and family, and (4) access to Chinese medical practitioners. These themes materialized as Jing Li and Bill told of their experiences of having used Chinese medicine, a form of complementary and alternative medicine.

5.4.1 Traditional Understandings of Health and Illness

Being in good health is recognized within Chinese culture as one of the most important aspects of life. For Bill, having a good quality of life is directly associated with being healthy. Both interviewees saw good health as more important than wealth. This was made clear when Jing Li said:

Your health is everything. If you haven’t got health, what do you have? You can have millions and billions of dollars, but it doesn’t mean anything.

Bill and Jing Li hold similar health beliefs that are consistent with the philosophical tenets of Chinese medicine. Their use of Chinese medicine is consistent with how they conceptualize the meaning of health.

Both reported having a holistic understanding of health and how the body functions. They discussed how every part of their being is connected - body, mind, and spirit - so the source of a health problem could be deeply rooted in all those parts rather than exclusively in the body. For example, mental stress could transform into a physical problem and health problems from the past could reappear in a different form years later.
if they are not properly addressed in the first place. Previous experiences and traumas could also trigger problems later on. This belief is clearly demonstrated in the way Bill speaks about his mother’s arthritis:

Bill: My mom is a classic case. She had arthritis so painful she couldn’t sleep. She was just crying all night, night after night. This was because when she gave birth to my younger siblings, she did not rest properly. In those days, they don’t have hot water in the housing system - cold water only. So she had to wash diapers and clothing in cold water, you know, all this work, and eventually in her old age, it developed into arthritis.

Laura: See if you do that – if you tell this to a Western doctor, they won’t believe it! But it does. I can vouch for that!

Both felt that this understanding is not common in Western culture. They also talked about their views on the healing process. Both mentioned that certain problems could take months or even years to resolve because their underlying roots lie in incidents that happened years prior.

Further, the language the participants use to describe what it means to be healthy differs from that of biomedicine. Bill and Jing Li depicted illness using Chinese concepts, such as yin-yang imbalance and deficient qi, which accounted for certain ailments in ways that Western medicine cannot. The use of this kind of terminology was also reported in Lee et al.’s 2001 study about Chinese immigrants in Canada who suffer from chronic fatigue and weakness. The concept of qi is central to Chinese understandings of health. Bill and Laura explained qi as follows:

Bill: I think this is also another thing that the Western doctor does not see – qi... Chinese people often talk about qi.

Laura: Qi is like electrical currents... it’s like air circulating... it’s moving.

Bill: So in our body – our physical system – normally there’s always that circulation going on. For normal health, qi circulates well. Every joint, every part of our body functions well. But if that – if the circulation is lacking somewhere, then there’s some reaction like pain, numbness, or discomfort.
This comment demonstrates how Bill thinks about illness differently than his family doctor might. This alternative understanding informs his health behaviour. For example, the notion of having a proper yin-yang balance is central to how Bill, Laura, and Jing Li go about their everyday lives. They spoke about how different foods affect the inner yin-yang balance because they each have certain properties, which relates to the notion that nutrition is connected to health maintenance. According to Laura, melon provides yin, whereas beef tendons have a yang quality. These examples illustrate Jing Li, Bill, and Laura’s holistic understanding of health and illness.

Another important aspect of Chinese medicine is its preventative focus and its emphasis on health maintenance. Biomedicine largely focuses on curing problems, whereas Chinese medicine is geared at restoring and maintaining a natural balance. The degree to which people adhere to this preventative focus varies depending on which part of China they are from. Using herbs to maintain good health is quite common for Cantonese people, and while people from all parts of China share this focus, it is to a lesser extent outside Hong Kong and Canton province. Since neither Bill nor Jing Li are Cantonese, they typically only go to the herbalist when they have a specific health problem in order to cure it, much like Western medicine. However, Bill’s mother was influenced by Cantonese culture when they lived in Hong Kong during his early childhood. Bill said that his mother brewed and drank herbs once or twice a week for more than ten years in order to maintain good health and avoid illness later in life. For Bill and Laura, the connection between the weekly use of herbs and future good health is clear. Bill’s mother, who is in her late 80s, is still in very good health and, according to Bill and Laura she recently recovered from a broken hip incredibly quickly. Even her
arthritis has been alleviated due to herbal remedies. They believe that all those years of maintaining good health through herbal treatments have allowed her to avoid many surgeries. However, one must have balanced *yin-yang* before he or she can begin taking herbal blends to maintain good health, so for those with existing health problems, this is not an option.

While neither Bill nor Jing Li maintain good health through the Cantonese style of taking weekly herbal brews, each of them tries to prevent poor health in their own way. Jing Li tries to stay healthy through proper diet and exercise. Bill does daily *qi gong* exercises to stimulate his organs in an effort to prevent kidney and liver problems. He attributes his sleeping problem partly to a lack of exercise. Jing Li and Bill have also suggested or used preventative treatments with their children. Jing Li used Chinese herbs to improve her son’s immune system to prevent him from getting sick as a child. Bill’s son used external herbal pastes on broken bones in an attempt to prevent arthritis later in life. Clearly Chinese medicine has played an important role in both families. Prevention and maintenance are in accordance with holistic understandings and a preference for using non-invasive treatments that do not have side-effects like many Western treatments, such as medications.

A third major aspect of Bill and Jing Li’s traditional understanding of health is their belief that different people have different constitutions, which can be conceptualized as the nature, functions, and limits of an individual’s bodily, mental, and spiritual composition. Some people have too much *yang*, while others have too little, which predisposes them to develop certain types of health problems. This is illustrated by
Laura’s comments about her own health history and the way the herbalist accounted for her problems:

The essence of my health is not as good, so when he [the herbalist] takes my pulse, he knows, so he will try to balance me. And when I have back pain here (motions to upper back), he says that it is due to too much yang.

Chinese medicine requires that different people be treated differently, so treatment is often tailored to individual constitutions. Bill noted that Western medicine does not have this concept, so everyone receives the same treatment because it is the illness that is treated rather than the individual.

5.4.2 Views about the Effectiveness of Chinese Medicine

One reason why people use Chinese medicine is because they feel it works. Bill and Laura put it like this when asked why they use it:

Bill: First, it works!
Laura: And second, it works!

Jing Li and Bill’s appreciation of Chinese medicine comes from experience. They see Chinese medicine as offering something different from Western medicine. They both primarily make use of the Chinese herbalist and have had positive results from these treatments. Bill has received consistent relief from flu symptoms and Jing Li’s circulation has improved because of the herbalist’s remedies. Moreover, the participants gain confidence in the effectiveness of alternative medical treatments based on the positive experience of others. Laura explains why Bill uses Chinese medicine:

You see, it helped me. It helped his mother. That’s why he believes in Chinese medicine!
The positive experience of others is almost as important as their own in sanctioning their use of Chinese medicine.

In addition to the effectiveness of Chinese medicine, they like the herbalist’s approach to care, which they view as being more in tune with their holistic understanding of health. Jing Li notes that while her herbalist’s diagnostic methods seem unorthodox, he takes into account the patient’s whole being before making a diagnosis. In fact, she takes comfort in the fact that she does not have to describe her symptoms to the herbalist for him to make an accurate diagnosis. She spoke about this in some detail.

The Western doctors – you have to tell them what’s wrong with you when you go in there. I have pain here, you know? You have to tell them because they won’t be able to know, whereas the Chinese doctor, they can take your pulse, take a look at your tongue, take a look at your eyes, and even before you say one word, they will find out [what’s wrong] first, before you speak. That’s quite a difference, you know.

This skill coupled with successful treatment reaffirmed Jing Li’s view that Chinese medicine is effective.

Likewise, Bill has so much confidence in his herbalist that he has been seeing the same one for almost 25 years. Their relationship is much like that of a general practitioner and patient because the herbalist knows Bill’s medical history. Bill even followed his herbalist from Richmond to Vancouver when he moved to downtown Chinatown for a number of years. During that time, Bill consulted some other herbalists, but none were as good as his usual herbalist. Bill likes his herbalist because he is open to Western medicine. As was previously articulated, he is supportive of drug treatments for Bill’s high blood pressure. His herbalist recognizes that he cannot cure all and that Western medicine certainly has its place within health care. Bill also admires his herbalist’s commitment to helping patients as well as the relationship he has with his
“students” who train with him. According to Bill, the respect they show one another is almost unmatched nowadays. Laura said that she feels respected by their herbalist because he is willing to answer questions and goes out of his way to explain things she does not understand. Both also respect that he readily admits if he is unsure about something and is not afraid to make appropriate adjustments to his individualized herbal formulas. Jing Li and Bill’s reasons for their continued use of Chinese medicine become evident given their accounts of successful treatment and their satisfaction with their herbalists’ approach to care.

5.4.3 Acceptance of use by Family and Friends

The concept of social capital allows researchers to consider the connection between social determinants and health status at both the individual and community level (Hawe & Shiell, 2000). Consistent with Bourdieu’s (1997) definition, which acknowledges the resources that are amassed through social relations, the concept of social capital provides insight into how relationships, communities, and social environmental factors can aid in understanding the health-seeking behaviours of different populations. In the lives of the two study participants, social capital operates on three main levels: providing support for use, distributing practical knowledge and information, and reinforcing traditional understandings of health.

Jing Li and Bill feel secure about using Chinese medicine because it is socially accepted and oftentimes encouraged by members of their social networks, including family and friends. In spite of the fact that Jing Li’s husband is a Western pharmacist, he
acknowledges that Chinese medicine is better suited to treat certain health problems. Jing Li explained how her husband reconciles the use of both Western and Chinese medicine:

You see, her husband - even though he’s a pharmacist for Western medicine - he realizes that if you have an infection, definitely you need to have Western medicine. However, just to help you get better, you know, say, for example, to get your circulation going, you need to go and see a Chinese herbalist. He [her husband] has absolutely no problem with that.

Her husband’s unequivocal support is vital given that she would feel much less comfortable using Chinese medicine without it. Jing Li even feels supported to use alternative medicine by friends and family members who do not use it. At least within Jing Li’s social network, which consists primarily of other Chinese Canadians, the use of Chinese medicine is widely accepted. Bill has a more ethnically mixed social network, but he feels safe because his Chinese friends either use or would be open to using Chinese medicine. These social networks clearly work to validate the use of Chinese medicine for both interview participants.

Secondly, social capital functions by allowing people to distribute practical knowledge and information to others. With regards to the use of Chinese medicine, this includes information about reliable practitioners as well as general information about different forms of treatment and their effectiveness. Both Bill and Jing Li found their respective Chinese herbalists based on recommendations from friends. In turn, they have referred many others to specific Chinese practitioners and have suggested treatments for a variety of ailments.

Further, traditional understandings of health and the use of therapies that are based in these alternative philosophies are rooted in culture. Culturally-based knowledge about Chinese medicine is transmitted within social networks. For example, Jing Li views Chinese culture as playing an important role in promoting Chinese medicine:
It [Chinese medicine] is a cultured knowledge. People talk about it...

This “cultured knowledge” is distributed and used to reinforce culturally-based notions of health and illness.

Finally, social capital works to reinforce traditional health beliefs. Jing Li and Bill’s practices are validated through the support of others in their social networks, which allows them to feel secure in making use of these services in Canada. Likewise, traditional values are passed on through Chinese sayings that become lay knowledge, at least within Chinese culture. In both interviews, participants made reference to Chinese sayings when accounting for certain health problems and corresponding treatments.

Laura provided an example of this:

Laura: Because the Chinese have a saying of too much positive or too much yang, right, the tongue will swell and you will see... teeth marks on my tongue...

Marilyn: So what do you have to do?

Laura: I actually have to go and see the herbalist, and he will get all the herbs together to bring this down.

To summarize, the combination of support for use, distributed practical knowledge and information, and the reinforcement of traditional understandings through social networks works to provide motivation for the continued use of Chinese medicine.

However, the process of acculturation can weaken the adherence to traditional practices. Bill and Jing Li spoke about Chinese medicine and the importance of retaining other Chinese traditions and values, such as language, respect for elders, knowledge of Chinese history, and the value of the basic family unit. Since Bill and Laura’s sons were born in Canada and Jing Li’s sons were born in Taiwan, their levels of acculturation are more pronounced in terms of the degree to which they have retained many of these values.
and traditions. As second generation Chinese Canadians, Bill and Laura’s children have largely failed to retain many aspects of Chinese culture. The inability to speak Chinese, the departure from the Vancouver/Richmond area, and a marriage to a Caucasian woman are just some of the factors that have caused them to be more acculturated to mainstream Canadian society, and therefore, less likely to use Chinese medicine than their parents. It is important to note, however, that for the most part, Bill and Laura do not consider this loss of culture to be negative.

Bill and Laura have experienced some level of acculturation themselves. As a Christian couple, they have had to negotiate the use of certain Chinese practices that can be linked to what they believe to be “evil spirits.” This was evident when Laura discussed her hesitance to use *qi gong*:

I don’t know how *qi gong* works, ok? All I know is that it’s not a good thing to have. It’s not a good practice because you literally get yourself out of it...Well, that is not very good, you know, because all kinds of evil spirits can get into you. Believe it or not, that’s up to you, right? But it is very true. Now even the unbelievers – non-Christians – they will tell you the same thing. They will!

This demonstrates that Laura felt unsure about whether she should use *qi gong* because her health beliefs and her spiritual beliefs conflicted with one another, but in the end, she was able to reconcile the two by going to a practitioner who was also a Christian. She was pleased that she did because the *qi gong* treatment helped relieve her pain. Support concerning the utilization of alternative services from family and friends is connected to an assortment of factors relating to identity, including *social capital* and acculturation.
5.4.4 Access to Chinese Medicine Practitioners

*Institutional completeness* refers to the social organization of ethnic communities and the extent to which these communities can provide all the services that are required by its members (Breton, 1964). One of the features of a community with elements of *institutional completeness* is the availability of health services that are akin to those found in the country of origin. According to Bill, the availability of traditional Chinese medicine services has increased over the last twenty years, at least within Richmond and Vancouver. Bill notes many appealing practical aspects of accessing Chinese medicine:

Well, at least in this community, it's very handy. It's easy to access, right? And you don't need to book an appointment. It's (the herbs for prescriptions) right there on the herbalist's shelf.

He also noted that it is difficult to comment on the quality of the services given the increase in availability because, with respect to herbalists, they each have their own style. Therefore, an herbalist may work well for one person and not at all for another. Individuals must find an herbalist that suits them.

Jing Li noted that all the main Chinese modalities are available within the Richmond area. She thinks the quality and availability of Chinese medicine is the same as in Taiwan, although it is important to note that Richmond has a large Chinese community, which is not the case in many other parts of Canada. Unlike her visits to Western doctors, Jing Li can go to Chinese practitioners alone because there is not a language barrier. Both interviewees stated that the personal financial costs involved in accessing these services are of little concern because of the results they get from treatment. It should also be noted that Chinese treatments remain relatively cheap compared to many other forms of alternative medicine, such as naturopathy and massage therapy.
The degree to which Richmond is *institutional complete* continues to increase even today. Exclusively Chinese grocery stores in Richmond recently started selling soup remedies, which are pre-made mixtures of herbs for a myriad of different problems from postpartum issues to poor circulation to detoxification. This may be a reflection of the times, as people increasingly want quick and convenient access to everything, which has resulted in the commodification of practically everything, even Chinese herbs. This may also be a reflection of the degree to which Richmond is approaching *institutional completeness*. Bill and Laura repeatedly referred to Richmond as “China City” in jest when going to one of the four major Chinese shopping centres that sell everything from food to clothing and appliances. I was one of the few non-Asian people at the shopping centre on a busy Saturday morning. The continuing influx of Chinese immigrants to Canada will only augment this trend towards *institutional completeness*.

Easy access to Chinese medical services can have its downfalls, however. Sometimes there is a misconception that alternative medicine is always safe because it is “natural.” Bill and Laura debated whether government regulation is the key to solving this misconception and ensuring public safety. While Bill expressed some reservation about regulating these services, he noted some positive outcomes could transpire as well. He also said that in addition to public safety, the regulation of these services would further general awareness about Chinese medicine, including its strengths and weaknesses. Bill believes that the regulation of Chinese medicine would help produce better educated and more culturally aware medical doctors.

On the other hand, participants also felt that the regulation of these services may cause a lot of problems. Jing Li worried that the services would become bureaucratized
and less efficient like many of the services in Canada’s universal health care system. She also expressed concern about the logistics of regulating Chinese herbalists. According to her, it would be next to impossible to standardize and regulate their prescriptions in the same manner as Western medicine because each herbalist has their own unique style and formula. Bill echoed Jing Li’s sentiment that regulation might mean that cost and efficiency would be compromised. Bill is also worried that Chinese medicine would lose its patient-centred focus if it is subject to strict regulation. His wife seconded this concern when she spoke about how regulation and professionalization have affected Western medicine:

You know, in the olden days, the doctors did home visits! Take a look today. Are you kidding me? Time's up. Goodbye! You know? You got your five minutes worth, and that could be how many hundreds of dollars, right?

Without strict government regulation, Chinese herbalists have been able to operate in an informal manner. Herbalists charge patients with the task of keeping the written records of their ailments and prescriptions. Herbalists write out the herbal prescriptions, but rather than filing them in the store, patients must remember to bring these records each time they return for the same problem. Moreover, aspiring herbalists are trained by a “master” herbalist through an informal apprenticeship.

Ultimately, however, Bill said he would like to see Chinese medicine regulated and covered under the universal health care system so that services would be available to everyone. He believes that in the end, this would allow people to avoid surgeries and other costly, invasive procedures. It would save money and make for a more efficient health care system. Despite these wishes, Bill and Laura are skeptical about whether this could happen because of pharmaceutical companies and their ties to government. This relationship may prevent alternative medicine from ever being integrated into mainstream
health care in Canada. Their feelings reflect the study’s conceptual framework, which illustrates how the dominant voices of pharmaceuticals and business guide the health care system, which leaves little room for alternatives. Bill relayed a story about a man who wrote a book on alternative therapies and the ills of certain Western therapies and medications:

The person who wrote that book – he was *bombarded, hated* by the pharmaceutical companies. Big companies! And there were even a lot of court cases to sue him!

Laura echoed her husbands concerns:

Well, I just think that as long as you’ve got pharmaceutical companies producing all these pills, you’re not going to have alternative medicine that well brought up.

This statement illustrates the difficulty associated with legitimating a set of services in a field where its advocates are essentially powerless.

While there is some consistency between findings from previous studies regarding reasons for the use of alternative medicine (i.e., having an ‘alternative ideology’; availability of services), this study clearly indicates that there is a cultural element behind Chinese Canadians’ motivations for use, which results in differences from the general population with regards to the most prominent reasons. To summarize, while Jing Li and Bill utilize Western medical services, they recognize that Chinese medicine addresses specific health needs not adequately dealt with by Western treatments. Their adherence to traditional Chinese understandings of health and illness and a perception that alternative therapies are effective is shared by their family members and friends. These factors coupled with the wide-spread availability of these services would suggest an explanation for why many Chinese Canadians use alternative medicine.
CHAPTER 6: Discussion & Conclusion

This chapter summarizes the quantitative and qualitative findings and discusses how both sets of data assist in understanding CAM use among Chinese Canadians. The use of a mixed method design that combined quantitative and qualitative approaches allowed for a more in-depth understanding of the determinants of CAM use in Chinese Canadians in a way that cannot be explored using a survey questionnaire design alone. Further, the qualitative component offered insights into ways that the CCHS survey instrument can be improved, particularly with respect to questions on ethnicity, culture, and CAM use. The naturalistic data gathered through observations at a Chinese herbalist’s store and a Chinese grocery store were useful for contextualizing the experiences of Chinese CAM users at the community level. A brief summary of how the study’s conceptual framework applies to the findings is also provided. This chapter concludes with recommendations regarding policy development, the revision of questions in the CCHS, and, finally, suggestions for future research.

6.1 Overview of Quantitative Results

Secondary analysis of the CCHS confirmed the study’s hypothesis that Chinese Canadians are more likely to use CAM than non-Chinese Canadians. Key predictors of use for Chinese Canadians included living in Toronto or Vancouver, feeling strongly connected to community, being female, being between the ages of 50 and 65 years, suffering from at least one chronic condition, and self-reporting a fair or poor health status.
However, there were numerous differences with respect to key predictors between a typical Chinese Canadian user and a typical Canadian user. Results showed that the average Canadian CAM user was Canadian-born, which could reflect the fact that immigrants from all countries, not just those that adhere to traditional health systems, were included. The inability to speak either English or French also increased a respondent’s likelihood of using CAM, so there is a cultural connection for CAM use given that non-English/French speakers have higher odds of utilization. Therefore, factors associated with acculturation could explain variations in CAM use. While neither time since immigration nor charter language ability was statistically significant for Chinese Canadians, sense of belonging to community was not a significant predictor for typical Canadians, whereas it was for Chinese Canadians. Meanwhile, results from the overall Canadian sample confirm findings from previous studies regarding several socio-demographic and socio-economic variables. Namely, the average Canadian CAM user is more likely to be a female in mid-life with higher than average education and income. Neither income nor education was significant for Chinese Canadians, perhaps because there are more salient predictors for Chinese Canadians. Variables measuring health status, including the presence of a chronic condition (objective measure) and negative health status (subjective measure), were equally predictive for both Chinese Canadian and average Canadian CAM users.

The three-way interactions demonstrated that the combination of certain identity markers increases the ability to perceive how these factors work to predict the likelihood of CAM use. Specifically, the likelihood of CAM use varies by ethnicity, which varies by time since immigration and gender. This finding revealed that the combination of
being a Chinese immigrant woman substantially increases the odds of CAM use. At the same time, the odds of CAM use also vary according to ethnicity, which varies by census metropolitan area and the degree to which a person feels connected to his/her community. For example, Chinese Canadians who live in either Toronto or Vancouver and who feel a strong sense of belonging to their community have higher odds of using CAM than those who live elsewhere in Canada and who feel weakly connected to their community.

Overall, the quantitative results show that predictors of CAM use differ according to Chinese and non-Chinese ethnicity. The findings also suggest that cultural factors play a key role in establishing the necessary conditions for increasing the likelihood of CAM use for Chinese Canadians. In addition, key predictors of CAM use vary for Chinese Canadians and average Canadians. While the quantitative results highlight many characteristics of Chinese Canadian CAM users, the qualitative interviews are important in establishing a more complete understanding of the motivations behind the use of CAM.

6.1.1 Limitations

The quantitative component of this study was limited in several ways. First, the way in which the CCHS defines CAM is limited in that it does not clearly acknowledge the diversity vis-à-vis power, mandate, and regulation (and their inter-relationships) between various forms of CAM. At a minimum, a more complete definition of CAM should separate modalities based on standards such as regulation and licensing. Without this, the CCHS definition fails to acknowledge that certain CAM modalities, like chiropractors, massage therapists, and midwives, may be perceived (and therefore
treated) differently by allopathic doctors and Canadian health care users compared to TCM, for example. A more comprehensive definition that addresses this issue would perhaps help to differentiate between more and less “legitimated” forms of CAM, which, in turn, would provide further insights into who (i.e., the demographic profiles of users) uses different forms of CAM.

Second, given that visible minorities and immigrants are underrepresented in the CCHS, the quantitative findings may have been limited due to the small sample size of Canadian-born versus foreign-born Chinese. Further, small sample sizes made comparison between specific Chinese groups (i.e. Canadian-born, Mainland Chinese, Taiwanese, etc.) difficult. Third, the measures for social capital (the sense of belonging to local community variable) and institutional completeness (the census metropolitan area variable) were limited by how these concepts were operationalized according to CCHS survey questions. The sense of belonging variable is subject to the respondent’s interpretation with respect to whether he or she characterizes “local community” as ethnic, neighbourhood, or a variation of these. Although this variable has been used as a measure for social capital in previous Canadian studies, it may be limited in its ability to specify how connected people feel to their ethnocultural community. Further, while living in one of many institutionally complete communities in Toronto or Vancouver (i.e., Markham, Richmond) may have an impact on the utilization of CAM, it is also important to acknowledge that these communities vary demographically and politically, so presumably the ways in which they impact TCM use may vary as well. Therefore, the census metropolitan variable is limited because it is unable to account for differences between these communities, differences that may affect utilization patterns. Perhaps the
census metropolitan variable could be broken down further into postal code districts, which would provide a more accurate measure of institutionally complete communities within larger urban centres like Toronto and Vancouver. Finally, the CCHS makes use of a cross-sectional design; therefore, this study’s ability to truly understand the causal order of any relationship between CAM use and key predictors is limited.

6.2 Overview of Qualitative Findings

The qualitative component focused on Chinese Canadians because they are more likely to use alternative medicine than the average Canadian and they are currently Canada’s largest visible minority group. Findings come from in-depth interviews with two Chinese Canadians about their use of Chinese medicine. The primary areas of investigation included social factors (i.e., acceptance of use within familial and social networks), cultural factors (i.e., cultural understandings of health and illness), structural factors (i.e., availability of services as a component of institutional completeness), and health factors (i.e., presence of at least one chronic condition). The first participant was a woman in her mid 50s who immigrated to Canada from Taiwan approximately one year prior to the interview under the business classification. The second participant, a man in his late 50s, immigrated to Canada as a teenager after having lived in China, Hong Kong, and Japan. He and his family were sponsored by another Chinese family already in Canada.

The analysis is situated in participants’ use of traditional Chinese medicine in relation to the following explanatory categories: self-reported health status and health history; and socio-cultural and structural factors. With respect to health history and
status, the participants reported patterns of use that varied according to different types of illnesses and the severity of their symptoms. Participants viewed Western medical treatment as most effective for severe, acute problems, such as painful infections and those requiring surgery. Correspondingly, participants mentioned that Chinese medicine can be useful in relieving the side effects or "aftermath" of some of those Western treatments. They also viewed Chinese medicine as useful in preventing the onset of those severe, acute conditions. However, for mild, acute illnesses, such as the flu, participants felt that Chinese medicine was more effective than the typical treatment recommended by Western physicians like drinking lots of fluids and taking aspirin.

For severe, chronic conditions like high blood pressure, one participant reported ambivalence about the effectiveness of Western treatments, although he complied with the treatments that were recommended by his family physician because of long-term consequences for his health. Participants also mentioned using Chinese medicine either to supplement Western treatments or as an alternative. This was illustrated by Bill's use of both Western and Chinese treatments to treat his sleep apnea. Participants also reported using Chinese medicine to prevent the onset of severe, acute problems and chronic conditions or to correct what participants referred to as "predispositions" that were caused by a long-term imbalance of yin-yang or deficient qi or by conditions brought about by difficult life circumstances, like having to wash clothes by hand in cold water or not resting properly after giving birth, are more suited for treatment with Chinese medicine. In such cases, Chinese medicine is preferred because it addresses the underlying cause of those conditions or predispositions unlike Western medicine, which
participants viewed as having potential limitations because of its curative rather than preventative focus.

Participants also mentioned several social, cultural, and structural factors that provide further insight into patterns of traditional medicine use among Chinese Canadians. Among the socio-cultural factors, the presence of accepting familial and social networks made participants feel supported (or not) in their use of Chinese treatments. Similarly, social capital, which is accrued through these social networks, provided the necessary resources, such as knowledge about credible practitioners and effective treatments that facilitated access to Chinese medicine. Lower levels of acculturation also seemed a factor in accounting for the participants’ use of Chinese medicine. Lower levels of acculturation were associated with participants having retained traditional understandings of health and illness that were congruent with those of Chinese medicine practitioners and their “home” culture. Moreover, participants also mentioned previous and regular use of Chinese medicine in their country of origin, which undoubtedly works to promote use in Canada. In particular, they explained their use in relation to previous successes with treatment in either country in combination with a positive relationship with practitioners. Among the socio-cultural factors that worked against the use of Chinese medicine, the participants spoke about their children being acculturated to Western values and thus were less inclined to value Chinese medicine as a valid form of care. This suggests that attitudes toward the use of Chinese medicine are modified not so much by time since immigration but by generational status (i.e., first versus second (Canadian-born) generation).
Several structural factors also facilitated the use of Chinese medicine. For instance, participants spoke about the availability of services and practitioners who spoke Chinese as being important factors in encouraging the continued use of Chinese medicine. Those factors are related to the degree to which a community is institutionally complete. In these cases, participants accessed services in Richmond, which had high levels of institutional completeness. This institutional completeness also facilitated acceptance of Chinese medicine providers by individuals in the host community.

Another factor was Western family physicians accepting and encouraging the use of Chinese medicine, which participants felt validated their traditional understandings of health. Also, familiarity with Chinese medicine as mainstream treatment in their country of origin makes participants feel secure in using these practices in Canada. Conversely, participants spoke about experiences with physicians who appeared unsupportive of their use of Chinese medicine as a potential constraint in limiting their use of Chinese medicine. Overall, the qualitative component of this study identified several socio-cultural and structural factors that combined with health status and history operated to facilitate or constrain the participants' use of Chinese medicine. The qualitative component of this study is limited by the small number of case studies.

6.3 Complementary Nature of the Quantitative and Qualitative Findings

The quantitative findings highlight important variables as predictors of CAM use among the Chinese Canadian population. The qualitative findings help illuminate why those variables are key predictors of CAM use with respect to particular social and
cultural variables and their interactions. In addition, the qualitative findings contextualize the lived reality of users with a focus on Chinese medicine. For example, the secondary analysis of CCHS data indicates that Chinese immigrant women and Chinese who feel strongly connected to their community have higher odds of using CAM. The qualitative findings shed light on the interactions between these variables. Perhaps the effect of Chinese ethnicity and immigrant status is amplified by levels of acculturation. The level of acculturation is, in turn, affected by a generational effect. The interviews revealed that Chinese immigrants who retain traditional Chinese understandings of health are more likely to view Chinese medicine as an effective alternative to some Western medicine treatments.

Another example concerns the effect of living in either Toronto or Vancouver, which can be attributed to the presence of large – both in size and number – Chinese communities and easy access to Chinese medical practitioners in these two cities. Living in proximity to an ethnic community facilitates retention of cultural values and minimizes the degree of acculturation. Moreover, the importance of feeling strongly connected to community may be related to the fact that many Chinese CAM users live in ethnic enclaves within Toronto and Vancouver. The interview participants alluded to the way in which being a member of a strong local Chinese community made it easier to connect with others of similar ethnic and cultural backgrounds, thereby facilitating the retention of ethnic language, values, and practices. A strong connection to community is also related to social networks and the accumulation of *social capital*, both of which play a role in encouraging CAM use, reinforcing traditional understandings of health, and providing practical knowledge regarding services and practitioners.
Qualitative interview data also suggest reasons for the relative unimportance of education and income as key predictors of CAM use for Chinese Canadians. Education may not be central because, unlike average Canadians from the sample, other factors, such as the culturally-related variables and the retention of traditional health beliefs, are more salient predictors for Chinese Canadians and contribute to the acceptance of Chinese medicine as a valid alternative or complement to Western medicine. Further, data from the interviews indicated that Chinese Canadians typically only use Chinese medicine as a form of alternative medicine. Income may not be a significant factor, then, because Chinese medicine is still relatively inexpensive compared to other forms of alternative medicine, so cost may not be a major concern for users.

Both the quantitative and qualitative findings suggest that patterns of use vary according to health status and the severity of chronic conditions and/or illnesses. For example, participants preferred Western care for what they deem “severe” problems, such as surgery or severe chronic conditions like high blood pressure. However, they preferred Chinese medicine for mild chronic problems with intractable, long-term symptoms. These examples demonstrate how the integration of the qualitative and quantitative data provides a more complete understanding of the experience of Chinese Canadian CAM users. The study’s mixed design also lends itself to the application of the conceptual framework in that the quantitative component allows for an appreciation of the extent to which Chinese Canadians are using CAM, which provides a better sense of the pervasiveness of the inequality and symbolic violence they may experience (mainly from those outside their ethnocultural community), while the qualitative component
allows for a more thorough understanding of how this inequality plays out in the lived experiences of Chinese Canadian CAM users.

Further, the study’s conceptual framework relies on the seminal work of Pierre Bourdieu. His notions of *habitus* and *field* assist in articulating why immigrant Chinese Canadians retain traditional understandings of health and illness after migration. These understandings are part of an *habitus* that is developed in a *field* of health care in the “home” country. Chinese Canadians are able to retain intact *habitus* with the support of culturally-based social networks and *social capital*. *Social capital* facilitates access to Chinese medicine in Canada despite the presence of a different *field* of health care. There are times, however, when Chinese Canadians’ traditional understandings of health and illness are devalued by others. According to Bourdieu, this constitutes an act of *symbolic violence*. This occurs to some degree when Chinese Canadians do not feel comfortable disclosing their use of Chinese medicine to their family doctors because those doctors are unsupportive of this approach.

### 6.4 Recommendations and Conclusions

Few studies have directly examined the relationship between Chinese ethnicity and CAM use, and even fewer have attempted to understand the social and cultural factors that influence Chinese Canadians’ decisions to use CAM. As Canada’s population becomes increasingly ethnoculturally diverse, its Western-based health care system might be challenged by demands for CAM to be integrated within mainstream delivery systems. Further research examining the impact of ethnicity, immigrant status, acculturation and health care on this process will be needed. This study’s findings could
begin to help inform health policy and program development for the provision of alternative health services to visible minority immigrant Canadians. More specifically, this study provides important insights into the ways in which Chinese Canadians feel their traditional understandings of health and illness are marginalized. Since this research is concerned with issues of power and inequality, it articulates how inequality plays out for Chinese Canadian CAM users.

This study also makes significant theoretical and methodological contributions. The theoretical shift back to using Bourdieu’s notion of *social capital*, in addition to other major concepts he developed, provides a broader framework with which to contextualize this phenomenon at both macro and micro levels. Moreover, the integration of the concept of *institutional completeness* as a structural component fits well with the mainly Bourdieuvian conceptual framework.

The mixed method design allows for unique insights into the weaknesses of the exclusive reliance on quantitative findings extracted from the CCHS. First, the underrepresentation of visible minorities in the CCHS, and for the purposes of this study, the underrepresentation of Canadian-born Chinese was particularly evident. CCHS data fail to capture the ethnocultural make-up of Canada given that many people are excluded from the sample because they cannot speak English or French. The nature and content of the questions also deserves some attention. As a health survey, the CCHS should include a question as to whether individuals use CAM for health maintenance/preventative or curative purposes. A question on immigrant classification and more direct questions on *social capital* and acculturation would also be useful. Certain uncommon CAM modalities, such as Feldenkraise or Alexander teacher or Rolfer, all of which result in
extremely low frequency counts, should be eliminated and replaced with broader categories like Chinese medicine and Ayurvedic medicine to capture practices like qi gong. Finally, it is important to note that had the interview participants taken part in cycle 2.1 of the CCHS, very little would be known about their experiences of having used Chinese medicine from their responses. Thus, while the results from the CCHS are generalizable to the Canadian population, the questionnaire could do a better job of capturing the experiences and motivations of Chinese CAM users. Further, qualitative research could be used to document what transpires in the everyday lives of individual CAM users.

Future research in this area should focus on specific types of CAM practices since broad definitions of CAM are often inconsistent across research studies. Narrowing these definitions would certainly facilitate the ability to make comparisons across studies. Also, further exploratory qualitative research with a larger sample and a “less biased” sampling strategy, such as theoretical sampling, is needed. Additional interviews with a diverse sample of Chinese Canadians would provide further support for this study’s qualitative findings and would offer further insights into why Chinese Canadians use CAM; that is, it is important that future research acknowledges the diversity that exists within the Chinese Canadian population. Replicating this study while focusing on different Chinese Canadian groups (i.e. Canadian-born and immigrants from Mainland China, Taiwan, Hong Kong etc.) would provide further insights into differences in utilization patterns between these groups. Finally, similar research studies with different ethnic minority groups that use traditional healing practices, including First Nations and
South Asians, are needed to provide additional support for the relationship between ethnicity and CAM use that has been established in this study.
References


APPENDIX B

Interview Guide

Marilyn Roth

Understanding Why Chinese Canadians Use Complementary and Alternative Medicine

OBJECTIVES
- To better understand why Chinese Canadians use CAM
- To explore their experiences of having used CAM

INTRODUCTION
- About the project – see objectives
- Consent form and confidentiality
  - Discuss in detail with participant
- What their participation will involve
  - Participation is entirely voluntary, withdraw at anytime
  - share experiences of having used CAM
  - being interviewed
  - reviewing transcripts
- Briefly discuss what is meant by ‘CAM’
  - TCM, also massage therapy, chiropractic, naturopathy, etc...
- Take your time when answering the questions, no right or wrong answers
SOCIAL NETWORK/BACKGROUND INFORMATION

- **Immigration**
  - Where were you born?
  - When did you come to Canada?
  - What immigration classification did you/your family arrive under?
  - How often (if ever) do you visit China/Taiwan/HK?
  - Have you always lived in the Vancouver area?

- **Family**
  - Tell me about your family.
    - Where are they
    - Who do you live with
    - How many generations live in Canada?
      - Intergenerational differences (both generally and in relation to CAM use)
    - Tell me about the importance of family (why and how)

- **Friends, broader community, key players in social network**
  - Who are the most important people in your life?
  - Who else do you see and speak to regularly?
  - Are there other people you interact with regularly? Friends etc…
    - How met, what do you do with them
    - Immigrants? Chinese ethnicity?
    - Do they use CAM? Who does and who doesn’t?
  - Tell me about your neighbourhood and the community you’re part of.
    - Involvement in community/connection to community, community organizations, importance of being involved and having friends
    - Differences in neighbourhood/community now compared to arrival in Canada, how has it changed?

- **Culture**
  - maintain culture and traditions – what and how
    - What values do you feel are important to pass on to children and grandchildren?
    - What aspects of Chinese culture are important to preserve?
      - Why?
    - Language, food, holidays, other traditions?
    - Chinese medicine? If so, why?
EXPERIENCE OF USING CAM

- **Experience with CAM vs. Western medicine**
  - Tell me about a specific instance where you had to consult an alternative health practitioner for a health problem?
    - Decision making process involved, what happened?
    - Cold or flu?
    - Other health problems?
    - Types of CAM used
    - Effectiveness of treatments
    - Change in use over time
      - more/less, type and frequency, why?
  - General experience with Western medicine
    - positive/negative
    - compare doctor-patient relationship
  - Speak to MD about CAM use?
    - Why, why not?
    - Their reaction?
    - Ever felt misunderstood by MD
  - access to Western medicine
    - ever a problem
      - If so, how? What barriers?
WHY DO YOU USE CAM

• Conceptualization of health and illness
  - How would you describe your overall health?
    ▪ Why would you say it’s good/bad?
  - What does it mean to be healthy? What about unhealthy?
    ▪ How would you describe or think of illness and disease? (balance, ying/yang, holistic view?)
    ▪ How would you describe how the body functions/operates?
    ▪ What terminology do you use to describe your particular ailment/condition or another health problem? (i.e. cold/fever)
      • others who hold same beliefs vs. Western doctor
  - Maintenance vs. curative
    ▪ use TCM to maintain good health or to treat/cure a health problem
  - Maintaining good health
    ▪ Alternative medicine’s role in maintaining good health, more or less than Western medicine?
    ▪ Individual’s role in maintaining good health?
      • What do you do to stay healthy?
      • More or less individual emphasis in Western medicine vs. alternative medicine?
  - Do you conceptualize these practices, such as using herbs or acupuncture, as ‘alternative’? Is this different in Canada vs. China?
  - Do you believe there is any spiritual element to healing?

• Reasons for using CAM
  - When and for what specific reason did you begin using CAM?
    ▪ Western doctor as well?
  - How long have you been using CAM?
  - Why do you continue to use alternative medicine now?
    ▪ What condition?
    ▪ More generally why? (effectiveness, believe it works, friends use it, have always used it…)
  - What do you value about CAM/Chinese medicine? Western medicine?
  - How do you decide whether to use alternative medicine or Western medicine to treat a health problem? Describe the decision-making process.
  - reconciling use of the two, two very different systems, different approaches so how?
  - belief about effectiveness of CAM practices
    ▪ have you ever really wondered how/why it works?
      • Does this matter? Why, why not?
  - General feelings about
    ▪ Cost/lack of coverage, must pay yourself
    ▪ less strict regulation than Western medicine
SOCIAL SUPPORT FOR AND ACCESS TO AND UTILIZATION OF CAM

- **Services**
  - Availability of services, ever unavailable?
    - Has this changed since you first came to Canada? More or less services?
    - How did you find your practitioner? Do you trust all of them?
  - Health care used in country of origin, what was available?
    - Compare to availability of services in Canada vs. China
    - Compare quality of services in Canada vs China

- **Acceptance of use**
  - CAM use is socially accepted among family and friends
  - Importance of this either way
  - Who among family and friends also uses CAM? Who does NOT?
  - How would you compare CAM use within your community and among friends and family compared to how much it's used in China? (if old enough to remember)

- **Talking about health**
  - Who do you talk to about health problems and possible forms of treatment?
    - Who specifically, has it always been with this/these person/people
    - Have they ever suggested treating a health problem with an alternative form of medicine rather than Western medicine? Who referred you?
      - Have you ever suggested that someone use alternative medicine?
    - Do you talk to (whoever they talk to about health problems) about your chronic conditions and what you do to treat them?
    - Are they supportive of your CAM use?

- Is there anything else you’d like to say or talk about? Any other thoughts or questions?
APPENDIX C

Participant Consent Form

The Use of Complementary and Alternative Medicine among Chinese Canadians

You are invited to participate in a study entitled "The Use of Complementary and Alternative Medicine among Chinese Canadians" that is being conducted by Marilyn Roth.

Marilyn Roth is a graduate student in the department of Sociology at the University of Victoria and you may contact her if you have further questions by email at maroth@uvic.ca or by phone at 250-483-5168.

As a graduate student, I am required to conduct research as part of the requirements for a Master's degree in Sociology. It is being conducted under the supervision of Dr. Karen Kobayashi. You may contact my supervisor at 250-721-7574.

Purpose and Objectives
The purpose of this research project is to examine the relationship between Chinese Canadian ethnicity and the use of complementary and alternative medicine (CAM) in Canada, and to explore some of the factors that contribute to CAM use among this visible minority group. It should be noted that Traditional Chinese Medicine (TCM) is a form of complementary and alternative medicine.

Importance of this Research
This research is important because there has been very little research that examines the relationship between ethnicity (particularly Chinese), immigrant status, and CAM use. Furthermore, CAM use among Canada's Chinese population is an important health care policy issue within the context of re-defining the Canadian health care system and the delivery of care to all Canadians. The results from this study will assist in guiding policy development by providing policy-makers with knowledge about the extent to which Chinese Canadians are using CAM as well as much-needed insight into the reasons for its use. Finally, information from the interviews may be useful in the development of culturally relevant questions in national health surveys like the Canadian Community Health Survey (CCHS).

Participants Selection
You are being asked to participate in this study because of your experience as a Chinese Canadian CAM user. Focusing on Chinese Canadians is particularly relevant since they are the largest visible minority group in Canada, with over 70% being foreign born.
Chinese Canadians make up almost 3.5% of Canada’s total population, which translates into more than one million people. As a result, it is important to conduct more research that is specifically relevant to Chinese Canadians.

**What is involved**
If you agree to voluntarily participate in this research, your participation will include being interviewed at a time and place of your choice. The interview should take approximately one to two hours and will cover topics, such as health ideologies and beliefs; immigrant status; region of birth/residence prior to immigration; time since immigration; nature and number of chronic condition(s); and discontentment with conventional medicine. With your permission, the interview will be audio taped. A few weeks after the interview, you will be asked to review the interview transcript as well as the researcher’s interpretations of the transcripts to confirm their accuracy.

**Inconvenience**
Participation in this study may cause some inconvenience to you, but this is limited to the time it takes to conduct the interview and review the transcripts afterwards. These meetings will be scheduled at your convenience.

**Risks**
There are some potential risks you may encounter by participating in this research. Health can be a sensitive topic, especially if you are suffering from a serious illness. You could become emotional as you respond to questions about your illness/condition. To prevent or to deal with these risks I will discuss your ability to pause or stop the interview at any time. You may also decline to answer any question. Additionally, this letter provides referral information regarding counseling and/or support services should you wish to access them. Specifically, you can contact The Bridge Clinic in Vancouver (604-709-6540). This organization provides professional counseling services.

**Benefits**
The potential benefits of your participation in this research include being given an opportunity to share about your experiences of having used CAM. This research will also benefit the state of knowledge regarding the relationship between ethnicity and CAM use in Canada. In addition, the results from this study can be used to create culturally appropriate health policy and program development for visible minority and immigrant Canadians by highlighting barriers that may prevent members of the largest visible minority group from accessing the health care system versus the appeal of CAM practices. Society will also benefit in that the study will provide important insights into the ways in which Chinese Canadians feel their health beliefs are marginalized or viewed as unequal to conventional health beliefs. These insights are directly relevant to the debate between “mainstreaming” and “dedicated programs and services,” two different approaches aimed at improving the delivery of health care to ethnocultural minorities in Canada. Addressing issues of access to health care can help to improve the system’s effectiveness and efficiency for all. Finally, this study makes important theoretical contributions. This research is framed within the context of power and inequality, which
provides a platform to express how this inequality plays out for Chinese Canadian CAM users.

**Voluntary Participation**
Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or need for explanation. If you do withdraw from the study, I will seek permission to utilize the data that has already been collected. Should you decline this request, I will not use the data and it will be destroyed.

**On-going Consent**
To make sure that you continue to consent to participate in this research, I will thoroughly explain what is being asked of participants in this study. Ongoing consent for member-checking -- where participants are asked to review the data and confirm that it is accurate -- will be stated in the initial consent form.

**Anonymity**
Since participants will be recruited from personal contacts, complete anonymity cannot be ensured. I will, however, do everything to preserve the anonymity of all participants by using pseudonyms and by changing context details.

**Confidentiality**
Your confidentiality and the confidentiality of the data will be protected through the use of numerous strategies. All audiotapes and hard-copy transcriptions will be stored in locked file cabinets that can only be accessed by me and my supervisor. The transcribed interview files will be saved on a password-protected computer that can only be accessed by me.

**Dissemination of Results**
It is anticipated that the results of this study will be shared with others in the following ways: my thesis, conference papers, and academic journal publications. If you express interest in seeing the final results, I will provide you with a written summary of the findings.

**Disposal of Data**
Data from this study will be disposed of within five years following the successful completion of my thesis. All audiotapes and hard-copy transcriptions will be destroyed through demagnetization and shredding, while the electronic transcribed interview files will be erased from my computer.

**Contacts**
Individuals that may be contacted regarding this study include Marilyn Roth, the primary researcher, and Dr. Karen Kobayashi, Marilyn’s thesis supervisor. Their contact information can be found at the beginning of this consent form.
In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Associate Vice-President, Research at the University of Victoria (250-472-4545).

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

| Name of Participant | Signature | Date |

A copy of this consent will be left with you, and a copy will be taken by the researcher.