Psychosocial Responses to Falling in Older Chinese Immigrants Living in the Community

by

Mary W.Y. Chiu

A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy

Institute of Medical Science

University of Toronto

© Copyright by Mary W.Y. Chiu 2010
Psychosocial Responses to Falling in Older Chinese Immigrants Living in the Community

Mary Chiu
Doctor of Philosophy
Institute of Medical Science
University of Toronto
2010

ABSTRACT

Background and Rationale  Falls are among the most common problems faced by elderly persons. While the physical risk factors for falls are well established, the psychosocial aspects have been largely neglected. Moreover, studies exploring the responses to falls from the individuals’ perspectives in an immigrant population are virtually non-existent. The older Chinese immigrant population is substantial and growing in the Greater Toronto Area. The cultural and immigrant-related factors that influence their responses to and recovery after a fall are important considerations as health and social care professionals develop falls prevention strategies, and provide services and care. This dissertation explored the nature of immediate and subsequent responses of community-dwelling older Chinese immigrants after falling.

Method  Focussed Ethnography, as guided by elements from Critical Social Theory, was used as the research methodology. Eighteen informants over 70 years of age, living in the community who had experienced a recent fall were interviewed using a semi-structured guide developed after a detailed literature review. Thematic analysis of transcribed interviews was conducted.

Results  Four major themes related to responses to falling were drawn forth from the interview data: 1) Help-seeking decisions immediately after the fall, 2) Psychological impact of the fall, 3) Care and support networks, and 4) Learning from the fall.

Discussion  The psychosocial responses supported a “blended” explanatory model of illness. Respondents appeared to adhere to both Western medical models and traditional Chinese explanatory model depending on the severity of the fall injuries. Also, the roots of Chinese
culture in the blended traditions and philosophies of Confucianism, Taoism, and Buddhism appear to be the foundation for many of the beliefs and attitudes expressed in this study, and these beliefs and attitudes in turn influence how Chinese fallers experience falling. The wide range of psychosocial responses also illustrated the complexity of the Andersen’s Behavioural model for health services use and its potential to explain the different types of services an older Chinese immigrant may need post-fall.

**Conclusions**  Findings from this study provided key, previously unexplored insights into the cultural and immigrant-related factors that influence the psychosocial experience, vulnerability and care-seeking behaviours of older Chinese immigrants following a fall.
ACKNOWLEDGEMENT

For the most part, this dissertation was a personal journey. However, this journey would not have been possible without the generous time and help from many people.

First and foremost, I must extend my heartfelt gratitude towards my supervisor, Dr. Joel Sadavoy. Joel, it has certainly been a wild ride, but we made it! I still remember that year when I was frantically searching for a supervisor, armed only with a passion to work for the elderly population, and no specific goals in mind. From the moment you took me in as a Ph.D. candidate, you have never stopped believing in me. Your belief that I can achieve something great motivated and inspired me to strive to be better. I thank you for the countless opportunities you have provided for me to learn and grow. You are truly a great mentor, and a dear friend.

I would also like to recognize my supervisory committee: Dr. Laura Wagner, Dr. Susan Jaglal and Dr. Ka Tat Tsang. Your sincere criticisms, insightful ideas and continuous encouragement gave me strength to continue. I look forward to possible collaboration in the future.

Thanks to the staff at Carefirst Seniors and Community Services Association, Mount Sinai Wellness Centre, St. Paul's L'Amoreaux Centre, and Yee Hong Centre for Geriatric Care for their assistance in participant recruitment. A special thank you is also due to the many Chinese-Canadian citizens who took the time to discuss this difficult topic.

I would like to thank Ms. Florence Au for her editorial assistance.

Last but not least, thank you to my beloved family. To my sister, thank you for understanding and discussing the difficulties of being a graduate student. To mom and dad, thank you for loving and supporting me all these years, and encouraging me to complete this dissertation.
# TABLE OF CONTENTS

## APPROVAL PAGE

## ABSTRACT

## ACKNOWLEDGEMENT

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>1</th>
<th>INTRODUCTION</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Falling: Scope of the problem</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Study sample: The Chinese-Canadian population</td>
<td>3</td>
</tr>
<tr>
<td>1.3</td>
<td>Research Objective</td>
<td>4</td>
</tr>
<tr>
<td>1.4</td>
<td>Organization of the Dissertation</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>BACKGROUND</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>The Chinese-Canadian Population</td>
<td>6</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Immigration History of Chinese-Canadian Elders</td>
<td>7</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Demographics in Toronto</td>
<td>8</td>
</tr>
<tr>
<td>2.2</td>
<td>Chinese Philosophy and Culture in the Context of Health</td>
<td>8</td>
</tr>
<tr>
<td>2.2.1</td>
<td>Traditional Schools of Thinking</td>
<td>9</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Expression of Chinese Philosophies in Chinese Cultures and Traditions</td>
<td>10</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Explanatory Models of Illness under the Influence of Chinese Philosophies</td>
<td>12</td>
</tr>
<tr>
<td>2.3</td>
<td>Acculturation: Adaptation to the New Environment at an Old Age</td>
<td>14</td>
</tr>
<tr>
<td>2.4</td>
<td>Health Characteristics of Chinese-Canadian Immigrants</td>
<td>15</td>
</tr>
<tr>
<td>2.4.1</td>
<td>Physical and Functional Health Status</td>
<td>16</td>
</tr>
<tr>
<td>2.4.2</td>
<td>Mental Health</td>
<td>17</td>
</tr>
<tr>
<td>2.4.3</td>
<td>Utilization of Health Services</td>
<td>17</td>
</tr>
<tr>
<td>2.4.4</td>
<td>Social Health: Managing Altered Family Dynamics</td>
<td>19</td>
</tr>
<tr>
<td>2.5</td>
<td>Falling in Older Adults</td>
<td>20</td>
</tr>
<tr>
<td>2.5.1</td>
<td>Physical and Physiological Factors of Falling</td>
<td>21</td>
</tr>
<tr>
<td>2.5.1.1</td>
<td>Polypharmacy and the use of psychotropic medications</td>
<td>21</td>
</tr>
<tr>
<td>2.5.1.2</td>
<td>Functional ability</td>
<td>22</td>
</tr>
<tr>
<td>2.5.1.3</td>
<td>Exercise and physical ability</td>
<td>23</td>
</tr>
<tr>
<td>2.5.2</td>
<td>Psychological and Emotional Factors and Falling</td>
<td>24</td>
</tr>
<tr>
<td>2.5.2.1</td>
<td>Depression</td>
<td>24</td>
</tr>
<tr>
<td>2.5.2.2</td>
<td>Cognitive impairment</td>
<td>25</td>
</tr>
<tr>
<td>2.5.3</td>
<td>Psychological Constructs in the Fall Literature</td>
<td>26</td>
</tr>
<tr>
<td>2.5.3.1</td>
<td>Risk taking behaviours</td>
<td>26</td>
</tr>
<tr>
<td>2.5.3.2</td>
<td>Fear of falling</td>
<td>26</td>
</tr>
<tr>
<td>2.5.3.3</td>
<td>Fear of loss of independence</td>
<td>27</td>
</tr>
<tr>
<td>2.6</td>
<td>Qualitative Research in Falling</td>
<td>28</td>
</tr>
</tbody>
</table>
5.5 Practical Implications

5.5.1 Existing Knowledge on Social and Health Services for Fallers

5.5.2 Health care professionals should be leaders in facilitating changes

5.5.3 Fall education

5.5.4 Continuous promotion of the proper use of personal emergency alarm system

5.5.5 Maintaining a healthy informal support network

5.5.6 Joint effort from Chinese agencies to develop a centralized system for Chinese fallers

5.6 Limitations

6 FUTURE DIRECTIONS AND CONCLUSION

6.1 Future Research

6.2 Personal Reflection

6.3 Conclusion

CLOSING REMARKS

REFERENCES

LIST OF TABLES

LIST OF FIGURES

APPENDICES
LIST OF TABLES

Table 4.1 Demographic information and fall characteristics of the respondents  

Table 5.1 Summary of factors and domains affecting the use of formal and informal health, care and social services
LIST OF FIGURES

Figure 2.1 Andersen’s (1995) updated behavioural model 33

Figure 3.1 Flowchart representation of sampling strategy 55

Figure 5.1 The role of predisposing, enabling and need factors in formal health care and social services after a fall in older Chinese immigrants 109

Figure 5.2 The role of predisposing, enabling and need factors in informal care and social services after a fall in older Chinese immigrants 110
APPENDICES

Appendix A: Consent Form (Original version and Chinese translation)  149
Appendix B: Descriptions of agencies  153
Appendix C: Semi-structured interview guide  154
Appendix D: Revised semi-structured interview guide (Original version and Chinese translation)  155
1 INTRODUCTION

Growth of the elderly population is accelerating. In 2003, Canadians aged 65 years and over accounted for 13% of the total population, compared to 11% in 1991 (Statistics Canada, 2005). As members of the baby-boom generation age, the elderly population will further expand dramatically. By 2031, nearly 22% of the total population of Canada will be aged 65 years and over (Statistics Canada, 2005). The Chinese population makes up 40% of the ethnic minority population aged 65 and over (Statistics Canada, 2005). While individuals age differently from one another, as a group, the aging population battles a myriad of disabilities and health problems, and presents an enormous challenge to the health care system. One of these health challenges is the management of the consequences and complications of an accidental fall. This dissertation addresses the fall experiences of community-dwelling, older Chinese-Canadian immigrants.

1.1 Falling: Scope of the problem

Falling is defined as an “inadvertent landing to the lowest level,” and is “not the result of loss of consciousness” (Gray-Miceli, Strumpf, Johnson, Draganescu, & Ratcliffe, 2006). Falling is common at all ages but is particularly problematic in people aged 65 or older. Approximately one-third of community-dwelling, healthy older adults fall each year, and this rate rises steadily with age (Tinetti & Williams, 1998; Tinetti, 2003). Fall-related injuries account for a large proportion of hip fractures and urgent hospitalization (Tinetti, 2003). The health care costs of falls are substantial. In the U.S., the total direct cost of all fall injuries for people 65 and older in 2000 exceeded $19 billion (Stevens, Corso, Finkelstein, & Miller, 2006), and the costs imposed on the health care system increase with fall frequency and severity (Rizzo et al., 1998). The psychological well-being of fallers may also be compromised, as fallers often develop fear of falling, anxiety or depression (Lajoie & Gallagher, 2004; Sattin, 1992). These
complications often affect fallers’ ability to carry out activities of daily living following recovery, negatively impacting their quality of life.

In response to the detrimental effects of falls on individual fallers and on society, research to date has focused on identifying the risk factors that are associated with falling and repeated falling in older adults. The majority of fall studies in older adult research has focused on biomedical factors perhaps because of the obvious interaction of falling with the physiological changes closely associated with aging (Ivers, Cumming, Mitchell, & Attebo, 1998; Koski, Luukinen, Laippala, & Kivela, 1996; Koski, Luukinen, Laippala, & Kivela, 1998; Tinetti & Williams, 1998). Tinetti and colleagues (Tinetti, Speechley, & Ginter, 1988) conducted a prospective study to evaluate physical factors such as mental status, strength, reflexes, balance, and gait disturbances, and found that they are all significant risks for falling. Similar research has emerged in the last 20 years and expanded this list of physical risk factors to include fall history (Tinetti & Williams, 1998), postural instability, diminished muscle strength, reduced visual acuity (Koski et al., 1998), and polypharmacy. These studies led to the development of a multifactorial risk model of falling, which has been the basis of clinical screening tools and falls prevention programs (Vaapio et al., 2007).

Undoubtedly, quantitative studies provide useful information that influences clinical decision-making and interdisciplinary care practices in falls management and prevention. However, falling is also a deeply personal experience, since the individual context within which each fall takes place is different for each faller: environmental circumstances, prior life experience, personality, attitudes towards recovery, emotional vulnerability, and cultural practices and beliefs. The interaction of these multiple factors, together with the biophysical factors, create a complex picture in every case (Sadavoy, 2009), making it impractical to investigate and measure each of them using quantitative assessment tools. In recent years, a few
investigators have begun to investigate the interaction of psychosocial factors with falling in elders. Psychosocial refers to factors which potentially relate psychological phenomena to the social environment and to pathophysiological changes (Hemingway & Marmot, 1999). Using a qualitative approach, researchers have begun to understand fear of falling (Kong, Lee, Mackenzie, & Lee, 2002; Lee, Mackenzie, & James, 2008; Luukinen, Koski, Kivela, & Laippala, 1996) and to assess personality-based factors such as perceived control and optimism (Jacelon, 2007; Ruthig, Chipperfield, Newall, Perry, & Hall, 2007). However, to date, cultural attributes of falls have rarely been examined when qualitative data is analyzed, and non-English speaking subjects are typically omitted from North American research protocols. Hence, relatively little is known about the responses to and management of falling in specific ethnocultural communities.

1.2 Study population: The Chinese-Canadian population

An examination of psychosocial factors associated with falling in elders in ethnocultural communities is timely because of the quickly evolving demographic makeup of Canadian society. A Chinese-Canadian sample was selected for this study, because it is one of the largest ethnic groups, making up 40% of the ethnic minority population aged 65 and over in the Greater Toronto Area (Statistics Canada, 2005). Moreover, the predominantly immigrant-status of this elderly population may put them at a disadvantage when it comes to health care. Although they have many needs, older Chinese immigrants are among the most underserved populations by the mainstream health care system. They have lower health status and may receive lower quality of care, with language and cultural barriers listed as the top reasons for the disparity (Chappell & Lai, 1998; Lai, 2004a; Lai, 2008).

Beyond its size and disproportionate health vulnerabilities, the Chinese-Canadian population can provide a non-Western cultural perspective that is in stark contrast to the
Western perspective. Culture is defined as “a set of values, attitudes, beliefs, and behaviours shared by a particular group of people, communicated from one generation to the next”. It is learned behaviour that shapes attitudes and encourages some types of behaviour over others (Minami, 2002). The complex Chinese culture not only influences Chinese values and beliefs, but also determines their responses to health, illness and nursing care (Shih, 1996). For example, cultural beliefs and characteristics such as a longstanding tradition of withstanding hardship, a high tolerance for distressing circumstances, a strong sense of interdependence with family and social support (Parker, Gladstone, & Chee, 2001) may play a role in how Chinese immigrants manage a fall and its subsequent events and therefore deserve thorough investigation.

1.3 Research Objective

The objective of this dissertation is to create a cohesive, integrative picture of how Chinese-Canadian elderly fallers respond immediately to, and manage the consequence of falls; and to describe and possibly understand the psychological, social, and cultural factors that might influence their decisions and responses. This dissertation will highlight culturally patterned beliefs and assumptions that would ultimately guide health care workers to carry out more culturally appropriate health care and improve their ability to anticipate and avoid complications in communication. Lastly, the Andersen’s Behavioural Model for Health Services Utilization will be examined and modifications will be suggested to enhance its explanatory power when applied to older Chinese immigrant fallers.

In terms of the methodology, qualitative methods are an appropriate methodology to explore a topic which is conceptually dense and involves social processes (Strauss & Corbin, 1994). Specifically, this study is guided by the ethnographical methodology (Strauss, 1987), which is an iterative process, during which the research question may change as the research
process unfolds, and what is most pertinent to the faller’s situations is drawn forth. This methodology also has its roots in the critical social theory. The rationale for choosing focussed ethnography, the evolution and refinement of research questions, as well as the emergent of themes that form the basis of the theory will be discussed in more depth in Chapter 3.

1.4 Organization of the Dissertation

The dissertation begins by outlining the scope and objectives of this study in Chapter One. Chapter Two is dedicated to understanding the study population – Chinese-Canadian – at the societal/cultural, community, family and individual levels and in the context of traditional beliefs, acculturation, and health characteristics at the societal level. This chapter consists of a literature review of qualitative research on falling experiences in the elderly population, emphasizing the rationale for examining in greater depth the psychosocial and cultural variations in response to falling. The latter part of the chapter concentrates on how the Andersen’s Behavioural Model of Health Services Utilization may inform the understanding of psychosocial and cultural factors, which may predispose, enable and affect Chinese immigrants’ perception of their need to seek assistance after a fall. Chapter Three presents the methodology and theoretical framework that guided the development of the research questions and the subsequent analysis. It contains detailed information on ethnography and critical social theory, and describes the study methodology, which consists of four stages: Participant observation, Key informants interviews, Pilot interviews, and Face-to-face interviews. Research findings are presented in Chapter Four and a detailed discussion of the themes and categories from the data analysis, their relation to culture and the implications for practice are provided in Chapter Five. Chapter Six contains recommendations for future research and a personal reflection concluded the dissertation.
2  BACKGROUND

As indicated in Section 1.3, the objective of the current dissertation is to explore the scope of immediate and adaptive decisions and responses of community-dwelling older Chinese immigrants after a fall. It is assumed that psychosocial factors such as ethnicity, gender, socioeconomic position, health beliefs, living arrangement, cultural differences and educational attainment may contribute to disparities in this population as they access health services after a fall. Wider social structures such as economic organization, political systems, and societal power relationships that privilege some individuals while marginalizing others, also serve to maintain and engender the disparities. Critical social theory provides a useful approach for capturing these broader contextual perspectives. The historical background, key tenets, and research significance of the critical social theory will be discussed in detail in Chapter 3. In this chapter, however, a literature review guided by critical social theory is presented. One of the theory’s key tenets – the assumption of the dialectical relationship between humans and the environment – informed the topics of the literature review at the societal/cultural, community, family and individual levels. In investigating the behavioural responses of Chinese elders who have fallen, it is reasonable to assume that they will attempt to access some form of health services following the fall. Therefore, the Andersen’s Behavioural Model of Health Services Utilization may prove useful in informing the interpretation of the results. Thus, the research gaps of the model will be identified and discussed in this literature review as well.

2.1 The Chinese-Canadian Population

Understanding the immigration and cultural background of Chinese-Canadians is important, as they are the population of interest in the current research. Sections 2.1 and 2.2 aim at exploring this group at the societal and cultural level: the historical and contemporary forces that resulted in Chinese settling in Canada, the demographics in Toronto, and the traditional
thinking and philosophy that influenced their beliefs and health behaviours. This review will enhance our understanding of how social disparities came about for this population in the host country.

Contrary to common perceptions, the Chinese community is an extremely heterogeneous group. The Chinese population in Canada is mainly composed of people from People’s Republic of China, the Special Administrative Region (SAR) of Hong Kong and Taiwan. Other Southeast Asian countries such as Vietnam, Singapore, Thailand, Malaysia, Cambodia, and Laos also represent the origins of a large number of the Chinese immigrants (Lai & Yue, 1990). Coming from different parts of the world, Chinese-Canadians speak different Chinese dialects, with the most common ones being Cantonese, Mandarin, Toishan, and less commonly Shantou, Hakka, Fujian and Chaozhou (Chappell & Lai, 1998). Having distinct cultural values and traditions, and speaking different languages, these individuals immigrated to Canada for different reasons.

2.1.1 Immigration History of Chinese-Canadian Elders

Chinese-Canadians have a lengthy settlement history in Canada, dating back to the late 1800s. During the first great influx of Chinese individuals to Canada, 15,000 labourers arrived in Western Canada from China to build the Canadian Pacific Railway (Lai & Yue, 1990).

After the completion of the railway, Chinese immigration was discouraged, and European immigrants accounted for the vast majority (90%) of the immigrants who came to Canada. Changes to immigration regulations in 1967 removed discriminatory criteria and allowed Chinese to come to Canada as independent immigrants. This second influx has resulted in the People’s Republic of China taking over as the leading country of birth among individuals who immigrated into Canada, followed closely by the Special Administrative Region (SAR) of Hong Kong and Taiwan (Statistics Canada, 2001). The majority of these Chinese elders from
China, Hong Kong and Taiwan have come to reunite with their children. While the children work as technical workers and professionals, the elderly take up the role of baby-sitting and house chores in support of their adult children (Employment and Immigration Canada, 1985).

The third group of elderly Chinese consists of retirees who are mostly from Hong Kong and Taiwan, and are financially independent (Employment and Immigration Canada, 1985). With the last group of elderly Chinese refugees from Southeast Asian countries, People’s republic of China and Vietnam (Statistics Canada, 2005), these Chinese elders form a mosaic profile of immigrants with different socio-economical, financial, educational and health statuses (Lai & Yue, 1990).

2.1.2 Demographics in Toronto

Today, Chinese-Canadians represent one of the fastest growing and most diverse groups in Canada, surpassing 1 million in number (Statistics Canada, 2005). Nearly three-quarters (73%) of the immigrants who came in the 1990s emigrated to just three census metropolitan areas: Toronto, Vancouver and Montréal. In contrast, just over one-third of Canada’s total population live in these three areas. In the Toronto Census Metropolitan Area, the Chinese population is 259,709, approaching 11% of the total population. Of the population aged 65 and over in the metropolitan area, approximately 9% is of Chinese origin (Gee, Kobayashi, & Prus, 2003). These Chinese-Canadian elders are almost all foreign-born (95%). The Chinese elderly population is disproportionately female, with women outnumbering men by nearly a third (Gee et al., 2003). Among older age groups, this ratio increases dramatically as the life expectancy of women continues to outpace that of men.

2.2 Chinese Philosophy and Culture in the Context of Health

To understand the influences which have helped shape Chinese-Canadian health belief and attitudes toward falling and the management of fall consequences, certain traditional
Chinese philosophies, and the complex Chinese culture concerning health and illness must be explored

2.2.1 Traditional Schools of Thinking

Three schools of thinking dating back thousands of years have influenced Chinese moral beliefs: Taoism, Buddhism, and Confucianism. Together with the more recent infiltration of Christianity, these four sources of moral influences played a seminal role in shaping the Chinese culture.

_Taoism:_ According to Taoism, two opposing yet complementary forces, Yin and Yang, regulate the universe. Therefore, all elements within the universe, including the human body, are presumed to exist in a state of interdependence (Wang & Wu, 1973). Taoists also believe in allowing nature follow its own course (Takenaka, 1988), and this belief implies a commitment to non-action (Comte, 1992), which strongly conflicts with the focus of Western medicine.

_Buddhism:_ The Buddhist belief system teaches that all life is in a constant cycle of suffering and rebirth. Buddhist tenets describe the concept of “karma”, which states that suffering is the consequences of some immoral deeds, committed either in one’s past, or in a previous life or lives. The interpretation of the Buddhist principle of “karma” vary, and some people believe that unless the karma is given a chance to be “worked out” during one’s own lifetime, the person will likely suffer in the next life (Qui, 1991).

_Confucianism:_ Confucius taught the importance of family and set rules of conduct and principles of thought that assist individuals to achieve harmonious relationships (Chao, 1995; Lu, 2002). Confucian influences have powerfully informed the structure and balance of power within the Chinese family and society. In the second century B.C., Confucianism was established as the political orthodoxy of the Chinese state and the cultural orthodoxy of Chinese society (Unschuld, 1985). Strongly influenced by Confucianism, Chinese believe in fate and
allow fate to guide their lives. Therefore, they may be less active in attempting to control or reverse ill health, and may also tend to focus on interpersonal relationship rather than emotional needs when health events occur (Shih, 1996). As will be discussed in sections that follow, Confucianism also forms the root of filial piety and the concept of collectivism.

Christianity: Christianity provides yet another source of philosophy, as Chinese-Canadians who come from Hong Kong have been exposed to the influences of Christianity, both of which were transplanted to 19th century Hong Kong at the onset of its industrialization. Christianity was first introduced during the colonial era, and since its practice is more recent and less widespread, its influence upon Chinese attitudes and beliefs has not been as profound (Siven, 1987). Western influences that infiltrated Chinese thinking during the colonial era also include capitalism, which is a social structure based on the principle of individual rights. This thinking may have led to a trend in immigration. For example, the push forces (e.g., political regime) in the country of origin and the pull forces (e.g. economic opportunities) in the host country may have motivated people to migrate in pursuit of a better life.

2.2.2 Expression of Chinese Philosophies in Chinese Cultures and Traditions

Concepts about health and illness, as well as of care and treatment, are an integral part of ethnic identity that can be traced back to cultural and health beliefs (Hopper, 1993). In the context of the present study, the most important difference between Western and Chinese culture is the emphasis on individualism in Western societies. Individualism is a moral stance that asserts the importance of autonomy and self-reliance of each person. In contemporary moral philosophy, autonomy refers to personal rule of the self through adequate self-understanding and the absence of control or influence exerted by others. Therefore, every person is entitled to the individual rights of self-determination and privacy. Those raised in individualistic cultures are much more likely to see themselves as being stable, in terms of
attitudes, rights, and personality, with their environment being the variable that should change to fit the individual (Triandis & Suh, 2002). In Western medicine, the widespread assumption among bioethicists and health care workers that the person experiencing the illness is the best person to make health care decisions (Barker, 1992) attests to the centrality of the principle of respect for autonomy in Western society.

Within Chinese culture, however, moral judgment is based on social interaction rather than the free will of an individual (Kleinman, 1994). Personal connectedness, as well as the social meaning of these interrelationships would be jeopardized if one insisted on preserving individuality. Triandis and Suh (2002) suggest that those individuals living in collectivist cultures view environmental variables, such as cultural norms and obligations, as being relatively stable and that it is the individual that must be willing to change to fit into the environment. The value of collectivism is best expressed in traditional Chinese societies, where the family is a semi-autonomous economic unit consisting of an elaborate hierarchy of kin, and it is held responsible for the care of its aged, its sick, its unemployed and its disabled (Kendall, 1989). This pattern of familial collectivism has its roots in Confucianism, which focused on the quality of selflessness, and instilled allegiance in its people – first, to the family; second, to the clan, and next to the community. The foundations of social and moral order in the Chinese society are built upon these relationships (Unschuld, 1985).

On a societal level, the dichotomous cultural phenomenon of Collectivism/Individualism may be used “as a sub-set of cultural measures, and defines cultural differences as being devoted to either creating a society in which individuals are raised in very strong cohesive groups which protect them from outside pressures (collectivism) or societies in which individuals are expected to emphasize their own personal goals with much less regard for the "group" as a whole (individualism)” (Parker, Haytko, & Hermans, 2009).
Another Chinese traditional cultural belief that is rooted in Confucianism, and still followed, to varying degrees by many Chinese immigrants, is the notion of filial piety. Filial piety promotes the values of reciprocity, filial obligations and a sense of respect and responsibility for providing care to older family members. Care-giving of the older parents is expected of the grown children, to reciprocate the care that their parents provided to them when they were young (Tang, Li, & Liao, 2007).

Also embedded in Confucianism is the concept of “social sensitivity”, which states that Chinese people value how one’s own status appears to others. Social sensitivity also means that one’s conflicts are not expressed. It is not proper to challenge an expert. Therefore, if a Chinese person has misgivings with a prescribed treatment, he or she may not verbalize these concerns for fear of public conflict. Instead, the individual may simply not follow the treatment.

Finally, according to Confucianism, the body is not the property of the person inhabiting it, and it must be returned in whole upon death to ensure a proper afterlife. Consequently, Chinese elders who adhere to these beliefs may refuse surgeries or invasive procedures.

It is important to note that, as Western influences slowly diffuse into Chinese culture, these beliefs may not be retained in whole.

2.2.3 Explanatory Models of Illness Under the Influence of Chinese philosophies

Explanatory models of health differ from culture to culture, but all aim at defining what a disease is, how it occurs, why it exists, and what measures can either prevent or control it (Barker, 1992). Health beliefs in the Chinese culture relate to a state of equilibrium between the individual, society, and the cosmic forces of the universe (Lum, 1995). The Chinese concept of health and illness is based on traditional Chinese medicine, which is divided into three distinct but related types: classical Chinese medicine, Chinese folk medicine and medicine in
contemporary China. In Chinese communities across North America, Western health practices co-exist with these traditional explanatory models of health.

Classical Chinese medicine: This is an ancient body of knowledge, the roots of which lie in ancient Taoist philosophy. According to this philosophy, two opposing forces – Yin and Yang – regulates health, which is seen as a flow of energy (Xiaotong, 1992). Yin represents the “female, negative energy; the force of darkness, coldness, and emptiness”. Yang represents the “positive, male energy; the force of light warmth, and fullness”. Through changes in their relationships, the two opposing forces maintain a state of homeostasis in nature, societies and human beings (Chan, 2002). Taoism defines health as achieving equilibrium of the opposing forces, and a smooth flow of the vital energy, Qi, which is the biological energy for all physiological activities. Individuals must adjust themselves wholly to the environment to maintain this balance. When the balance topples, ill health may result. Mainstream healthcare services provided in the Western society does not necessarily appreciate these cultural beliefs. Because of the deeply rooted influence of Western medicine, some health-care professionals may be less knowledgeable about the complex Chinese cultural influences that affect their clients’ responses to community health-care initiatives. This could negatively affect the willingness of Chinese elders to utilize health services.

Chinese folk medicine: The theory originated mostly from classical sources and suggested that the patient himself, the family members, or non-licensed healers/practitioners use relatively simple remedies to treat ailments and/or their symptoms (Qui, 1991). These remedies are based on the principles of heat and cold (similar to Yin and Yang). Information about treatment is customarily obtained from newspapers, by word of mouth, and through oral histories, often without the full understanding of the characteristics of the treatment. Religion
and magic may also be a part of folk medicine, as Chinese may attribute health to good luck or to leading a good life, either in the past or the present (Lai & Yue, 1990).

*Chinese medicine in contemporary China:* This category of medicine draws ideas from classical and folk traditions, and from current medical technologies both Chinese and Western. Generally, the forms of treatment offered by traditional Chinese medicine include herbal medicine, acupuncture, acupressure, moxibustion (the burning of small quantities of dried herbs on the body), and chiropractic bone setting (Lai & Yue, 1990).

Western health practices emphasize a biomedical approach, and are accepted by Chinese-Canadians to a greater or lesser extent. Many Chinese-Canadian seniors tend to embrace a “blended” explanatory model of illness as a consequence of two factors: 1) the integration of traditional Chinese and Western beliefs and 2) the process of acculturation as a result of their immigration to Canada. However, there are a lot of misconceptions of the Western practices on the part of Chinese-Canadians. For example, Chinese tend to think of themselves as ill only when symptoms are evident (Aroian, Wu, & Tran, 2005). Since the primary goal is to get rid of these symptoms, the Western concepts of prevention are not clearly understood and appreciated. Also, as immediate results are expected from medications, prolonged Western treatment regimes (e.g. physiotherapy) are often viewed with skepticism, which may lead to premature discontinuation of Western treatment plans (Lai & Yue, 1990).

### 2.3 Acculturation: Adaptation to the New Environment at an Old Age

The roots of traditional as well as recent Chinese culture and philosophy are both diverse and tightly intertwined. This legacy has produced a people and a culture very different from the general Canadian population. For Chinese-Canadians, the process of acculturating to Canadian life adds yet another layer to the underlying cultural and philosophical complexity.
Acculturation is a process by which one cultural group adopts the beliefs and practices of a host culture (Mills & Henretta, 2001). The acculturation process is multidimensional and it encompasses physical, psychological, financial, spiritual, social, language, and family adjustment (Mui & Kang, 2006). Therefore, acculturation is a psychologically and socially complicated process, and may be particularly challenging and stressful for older Chinese immigrants in North America because they have few resources to assist them in adapting to their new life situation (Casado & Leung, 2001). In case of a negative health event, unsuccessful acculturation may translate to a shortage of resource in helping them navigate through the health care system. For example, lack of income may contribute to inappropriate health care utilization and alternative health choices in order to avoid burdensome medication costs. Lack of English fluency can make social involvement and health care service utilization frustrating and unrewarding. Difficulty in understanding the health provision model and bureaucracy may result in reduced access to health services (Waxler-Morrison, Anderson, & Richardson, 1990). A few small-sample studies of Asian elders reported that immigrants who were more acculturated to the host society tended to have better mental health status than those who were less acculturated (Stokes, Thompson, Murphy, & Gallagher-Thompson, 2001). Other variables that correlate with the minority elders’ high depression rate include shorter lengths of residence in the host country, more life stresses, social isolation, dependence on children and lack of social support (Mui & Kang, 2006).

### 2.4 Health Characteristics of Chinese-Canadian immigrants

As older adults age they undergo major and sometimes unanticipated changes in their physical health status, mental status, family situation, and economic security. Having to experience this phase of life in the host country may prove to be a challenge for older immigrants. Sections 2.4 and 2.5 explore the dialectical relationship between Chinese
immigrants and the environment at an individual and family level: different aspects of their health, their service use behaviours, interaction with their family members, and what is known about falling in the older adult population.

2.4.1 Physical and Functional Health Status

Despite the fact that the Chinese belong to the largest visible minority group in Canada, there are only a few studies in the literature that examine their health status, particularly the health status of aging adults. One study compared the health status of the Chinese aging population to that of the general aging population in Canada, and found that older Chinese-Canadians reported better physical health than all older adults in the Canadian population. Although Asian immigrants had lower risk of chronic conditions as a whole, these health advantages diminished with increasing length of residence in Canada, as the health of immigrants converges to the Canadian norm. This is known as the "healthy immigrant effect", and can also be applied at different stages of the life course including mid- to later adulthood, stages at which there is an increased likelihood of decline in physical and mental health status (Gee et al., 2003). Although Chinese immigrants had better physical health, they have a higher rate of ADL impairment. Specifically, Chinese immigrants reported more interference with their daily activities as a result of their health, and they spent more days in bed due to illness than the Chinese in China (Gee et al., 2003). Other studies showed that despite the age differences, Chinese women reported statistically poorer health than the Chinese men in different health domains, including physical functioning in the SF-36 health survey (Lai, 2004a). Efforts by service providers to address the health needs of older Chinese-Canadian women, the most vulnerable subgroup in this study, are essential.
2.4.2 Mental Health

Information on the mental health of older Chinese immigrants is important because it points to problems which may complicate the interventions of physical problems, such as the management of falls. Mental health issues may be associated with aging and a whole range of psychosocial concerns that come with aging: feelings of isolation that come with retirement, loss of meaningful relationships with the death of loved ones, and preparing for impending death (Akhtar & Choi, 2004). There are a number of mental health issues associated with aging, but two important areas of concerns are depression and suicide (Mui & Kang, 2006). Because of the comparatively poor physical health and stressful social circumstances of many elderly immigrants, they are more likely to lapse into depression than individuals in other age groups (Kuo, Chong, & Joseph, 2008). In Canada, close to one-quarter of the elderly Chinese immigrants were assessed to exhibit some depressive symptoms, which is higher than the rate reported in the general elderly population (Lai, 2004b). It is speculated that the reported rate is lower than the actual rate due to social stigma, low reporting rate and misdiagnosis.

One phenomenon associated with depression in Chinese immigrants is that of the “captive immigrants” status of Chinese women, who came to Canada because of a perceived responsibility towards their family (Ujimoto, Nishio, Wong, & Lam, 1993). Restrained by this “captivity”, Chinese immigrants may find it more difficult to become integrated into the society. It may also compound their sense of anxiety and depression (Ujimoto et al., 1993).

2.4.3 Utilization of Health Services

For older Chinese immigrant, not using health care services may not be a matter of preference, but rather, a lack of knowledge of what they are entitled to, as navigating through the health care system may prove to be intimidating for this population. Thus, the common myth is that older Chinese immigrants have lower utilization rates for many health care services
including physician visits, hospital stays, and community-based social services compared to their Caucasian counterparts (Damron-Rodriguez, Wallace, & Kingston, 1995).

Contrary to the long-standing assumption that elderly Chinese use fewer services, Chappell and Lai (1998) reported that they are just as likely as the general Canadian population to use a physician and home care services. Interestingly, they have a strong preference for Western over Chinese medicine, and also for Western trained doctors over Chinese practitioners. This may be because Western influence on Hong Kong dates back to the colonial period. Exposure to the West has affected the perceptions of medicine that many Hong Kong Chinese adults hold, despite their knowledge of the plethora of Chinese folk remedies. Another study reported that the pattern of health-care-system use is similar for Chinese and Caucasian Canadians. However, Chinese-Canadians reported lower satisfaction with physicians and perceived physicians more negatively than Caucasian Canadians (Liu, So, & Quan, 2007).

Chinese elders do tend to use services with Chinese staff, probably due to the fact that most of them do not speak or understand English. This is particularly true for immigrants from Mainland China, who showed an overwhelming preference for Chinese-speaking family physicians regardless of socioeconomic and demographic status (Wang, Rosenberg, & Lo, 2008). This study suggested that language, culture and ethnicity are intertwined in a complex way to influence the choice of health care providers and health management strategies in the host society. Therefore, it is important to identify health-professional shortage areas for culturally-diverse populations, addressing issues related to foreign-trained physicians and enhancing primary care delivery relevant for immigrant populations (Wang et al., 2008).

One area of health services that is indeed under-utilized by Chinese immigrants is mental health services (Tiwari & Wang, 2008). A survey of Caucasian people born in Canada, Caucasian immigrants, Chinese, South Asian, and South East Asian immigrants found that
Caucasian people were more likely to have used mental health services than Asian immigrants. This pattern could be due to the stigma associated with mental health conditions in the Chinese culture, and the lack of cultural sensitivity in diagnosis, psychotherapy and treatments.

2.4.4 Social Health: Managing Altered Family Dynamics

The life experiences of older immigrants are affected by many factors: men differ from women, older seniors from younger ones, and the length of time they have lived in Canada (Lai & Yue, 1990). Most of the literature appears to be about the young adults’ turmoil and transformation after entering a culturally alien environment. Little is said about how the onset of middle age and old age affect the newly structured hybrid identity of the immigrant (Akhtar & Choi, 2004). Psychosocial challenges faced by the aging immigrants are multi-fold and are of great relevance to the current study. One of the challenges is adapting to the changing dynamics in the family.

As children enter adulthood and leave their parents to start their families, their orbit shifts away from their parents. In Western culture, the departure of children as they reach adulthood is well accepted as an inevitable rite of passage. For Chinese parents, however, collectivism is preferred over individualism. When individuals accustomed to their close familial arrangements immigrate to individualist cultures, they are faced with great difficulties.

The unique culture that the children and grandchildren of older immigrants live by may not resemble that of their original homeland, nor that of their host country. Rather, the newly evolved culture is a blend of the two, and may that may seem completely unfamiliar to the older parents (Akhtar & Choi, 2004). Perceived intergenerational differences in cultural values may manifest in areas such as: the sense of ethnic identity, communication style, family values, family role and gender role expectations, and lifestyle choices. As a result, the generation gap that always exists between parents and children is compounded; and ultimately, when the
children of immigrants leave home, the space created between the parents and children may seem even wider.

The relationship that an immigrant has with his or her grandchildren can be strained because of the degree of acculturation gap that has evolved between them. The elderly immigrant might disapprove of their adult children’s and grandchildren’s acculturation and lack of respect. Furthermore, concepts associated with filial piety have shifted from authoritative filial piety to reciprocal filial piety (Liu & Huang, 2009). Thus, immigrant grandparents may find that their children and grandchildren show a reduced level of filial piety than they expect, leading them to believe that their grandchildren idealize them less and seek their advice less often. As a result, immigrants at this age may not feel that their grandchildren are a true continuation of their lineage. This may result in additional uncertainty and a fear of abandonment among elderly family members.

2.5 Falling in older adults

Identification of risk indicators for falls has been the aim of several studies and reviews of community dwellers and nursing home residents. One of the earliest prospective studies that attempted to identify risk factors for falling was performed by Tinetti and colleagues in 1988. The researchers reported that 32% of the subjects had at least one fall (Tinetti et al., 1988). Fear of falling, cognitive impairment, balance or gait problems and sedative use were identified as high risk factors (Chu, Chiu, & Chi, 2006; Lajoie & Gallagher, 2004; Lin, Hwang, Wang, Chang, & Wolf, 2006; Odebiyi, Oderinde, & Olaogun, 2008). When attempting to identify elderly individuals at high risk of falling, much research effort has been invested in understanding physical intrinsic factors such as balance and mobility, or impaired activities of daily living. The importance of intrinsic psychological factors such as depression and fear of falling, as well as cultural and social factors should not be overlooked.
2.5.1 Physical and physiological factors of falling

2.5.1.1 Polypharmacy and the use of psychotropic medications

A review of literature (1990-1995) of medications and falls in the elderly concluded that "polypharmacy… may be associated with falls" (Hanlon et al., 1996). Several studies also showed that the number of medications a person takes is significantly related to the risk of falls (Hegeman, van den Bemt, Duysens, & van Limbeek, 2009; Tinetti & Kumar, 2010). Although there are no randomized controlled studies of manipulation of medication as a sole intervention, multifactorial studies suggested that a reduction in the number of medications in patients who are taking more than four preparations is beneficial, as these people are less likely to suffer from potential adverse side effects resulting from the unintended interaction of medications (Nevitt, Cummings, Kidd, & Black, 1989). Certain types of medication, specifically psychoactive drugs such as sedatives (Nevitt et al., 1989; Tinetti et al., 1988), barbiturates (Grisso et al., 1991) and antidepressants (Ruthazer & Lipsitz, 1993) increase susceptibility to falling in all settings (i.e. community, long-term care, hospital, and rehabilitation). These medications are associated with postural hypotension; they are short-acting and they produce sedative effects, which in turn lead to a high susceptibility to falling (Rubenstein, Josephson, & Robbins, 1994).

Although there is substantial evidence that the use of psychotropic drugs and sleeping pills is a risk factor for falls in Western elderly populations, studies performed in Chinese populations failed to confirm such findings (Chu, Chi, & Chiu, 2005; Ho, Woo, Chan, Yuen, & Sham, 1996). Finding of a non-significant association between the use of psychotropic drugs and falls could possibly be due to the very low prevalence (1.6%) of use of these medications in Chinese elders (Woo, Ho, Yuen, & Lau, 1995).
2.5.1.2 Functional ability

Functional ability refers to one’s ability to perform basic activities of daily life without support and is considered important to an individual’s overall independence and quality of life (Manandhar, 1995). Unfortunately, a decline in functional ability inevitably accompanies aging. Functional ability assessment summarizes the net impact of pathobiological processes and morbid conditions (Wallace & Rohrer, 1990). Previous studies have shown functional disability to be an important correlate of falls in elders (Chu et al., 2005).

Many instruments for functional ability assessment have been developed and extensively reviewed (Branch & Meyers, 1987). However, functional disability is most commonly ascertained by assessment of impairment in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). In 1963, Katz and colleagues developed an ADL self-report questionnaire which assesses basic mobility and essential self-maintenance skills including bathing, dressing, toileting, transferring, continence, and feeding (Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963). Their original work has been expanded and developed further, and the ability to perform ADL has become a standard variable in research involving the elderly (Wiener, Hanley, Clark, & Van Nostrand, 1990). The second type of functional ability assessment is the IADL self-report questionnaire which assesses housekeeping, shopping, handling money and wider mobility such as using public transport. This was developed by Lawton and Brody in (Lawton & Brody, 1969) and deals with more complex activities relevant to a minimally adequate social life. Assessment of IADL is more sensitive for detecting modest functional loss than ADL.

The course of disability parallels the course of depression. The manifestation of depressive symptoms, as discussed later, is a major risk factor for falling. IADLs are significantly influenced by depressive symptoms and signs (Alexopoulos et al., 1996).
depressed elderly psychiatric patients, IADL impairment was associated with high severity of depression and depressive ideation, apathy, psychomotor retardation, and weight loss (Alexopoulos et al., 1996), which may lead to a higher risk of falls.

2.5.1.3 Exercise and physical ability

The benefits of exercise on muscle weakness, functional ability, and balance are well documented (Rubenstein et al., 2000; Schoenfelder, 2000). The proper maintenance of the above reduces the occurrence of falls in elders, as demonstrated by studies that evaluate the efficacy of exercise programs in reducing falls in elders (Sohng, Moon, Song, Lee, & Kim, 2003). Generic exercise programs are not effective in reducing falls (Lord, Ward, Williams, & Strudwick, 1995). However, programs that incorporate strength and balance training reduce falls and injuries (McMurdo, Mole, & Paterson, 1997). In particular, for community-dwelling women at moderate risk of falls, the ancient form of exercise Tai Chi Chuan, which emphasizes balance and flexibility, reduced the rate of falls during a short follow-up period of 4 months (Wolf et al., 1996). Exercise also has its psychological benefits, including increased social support, enhanced self-efficacy and reduced depression rates (Wolf et al., 1996).

Despite the beneficial effect of exercise, only 30% of individuals over the age of 65 report exercising regularly and approximately 12% of elders over the age of 75 engage in the recommended levels of physical activity (Heath & Stuart, 2002). There are several possible reasons for this low participatory rate. Firstly, elders are often under the care of their children and mostly play a passive role in the general population. They usually do not work and spend most of their times inside their homes. Thus, they feel less motivated to exercise (Halil et al., 2006). Secondly, self-defeating attitudes regarding exercising (e.g. finding it pointless to take care of one's well-being at such an old age), particularly in elderly women, also decrease the likelihood of participation in exercise programs (Palmer, 2005).
2.5.2 Psychological and Emotional Factors and Falling

As mentioned earlier, much effort has been put into identifying and understanding physical risk factors of falling. However, intrinsic psychological factors such as depression and fear of falling, as well as cultural and social factors are of demonstrated importance.

2.5.2.1 Depression

Using the Geriatric Depression Scale (GDS), prevalence rates of depression among non-institutionalized elders from various ethnic backgrounds (including the Chinese) range from 12% to 50%, which is relatively higher than that of the Caucasian population, which ranged from 15% to 20% (Mui & Kang, 2006).

It is well known that altered mental status of an individual is one of the most commonly identified risk factor for falls (Gluck, Wientjes, & Rai, 1996). Strong evidence from previous studies indicated that depression is significantly correlated with falls in the elderly (Bergland, Pettersen, & Laake, 2000; Stalenhoef, Diederiks, Kottnerus, Kester, & Crebolder, 2002). Some studies have also demonstrated that fallers are more depressed than non-fallers (Downton & Andrews, 1990). In an interesting study, Downton and Andrew (1991) subdivided their study sample into those who had tripped and those who had fallen for other reasons. “Non trip” fallers were found to be significantly different from non fallers in all factors considered, indicating physical and mental frailty. On the other hand, “trip” fallers did not differ statistically from non-fallers in most aspects considered. However, “trip” fallers had significantly higher depression scores than non-fallers, suggesting that depression may lead to inattention, which in turn leads to tripping. In (Connell, 1996), Connell confirmed that there is an increased risk of falling when people are inattentive to their surroundings or if they suffer a loss of concentration, and that depressed elders may have lower attention to obstacles and unexpected stimuli in the environment.
Depression may also be linked with decline in functional status and motor abilities. Halil and colleagues (2006) found a significant association between higher GDS-15 scores (depression was found as an independent correlate) and lower IADL scores (mobility problem and use of mobility aids were found to be independent correlates) with falls. In accordance with Halil’s findings, Turcu and colleagues (Turcu et al., 2004) suggested that elders are prone to postural and motor abnormalities secondary to psychomotor retardation associated with depression. These abnormalities may be another probable link between depression and falls in elderly subjects. Another possible explanation for the association would be the use of antidepressants, which are known to influence balance and postural control (Swift, 1984).

2.5.2.2 Cognitive impairment

The relationship between cognitive impairment and falling remains elusive. Previous multifactorial studies have produced conflicting results (Bergland et al., 2000; Halil et al., 2006; Kron, Loy, Sturm, Nikolaus, & Becker, 2003; Stalenhoef et al., 2002). In a Norwegian cross-sectional study that looked at the functional status among elderly fallers living at home, cognitive impairment as assessed by lower MMSE was found to be significantly associated with a higher rate of falling (Bergland et al., 2000). Similarly, Stalenhoef and colleagues (Stalenhoef et al., 2002) found that elders with MMSE scores lower than 24 face a high risk of falling. Decline in cognitive functioning leads to reduced attention span, concentration, the ability to recall new information, and longer reaction times (Blanchard, 1996), all of which may lead to falls. In contrast, Halil and colleagues’ (Halil et al., 2006) data did not present dementia as an independent correlate of falls. Lower MMSE scores were not correlated with falls in this study performed in Turkey. The authors speculated that functional limitations and the more sedentary lifestyle of the study population apparently help to decrease the risk.
2.5.3 Psychological Constructs in the Fall Literature

2.5.3.1 Risk taking behaviours

Risk is used as a means of establishing conceptual boundaries between the self and “the other” (Lupton, 1999). Most literature concentrate on young people and sexual health, and thus the construction of risk by older people is often times overlooked. From a life-course perspective, Kingston (2000) drew on the analogy of children’s risk-taking. Citing the example of a child learning to walk, Kingston (2000) suggested that the child will fall “reasonably consistently” at this stage, a behaviour considered by the parents to be risk-taking. However, if the potential benefit outweighs the danger (superficial injuries), this behaviour is deemed acceptable and inevitable. The acceptability of risk alters with age; an older adult who takes risk and falls is perceived as “foolhardy, with some apportioning of culpability, if not blame” (Kingston, 2000). However, older people may accept certain risks in order to avoid being patronized by professionals or young relatives, since the benefits of being perceived as an active, less dependent older adult may outweigh the risk of falls (Reed, 1998). Paradoxically, however, those who dismiss the risk of falling may not be pro-active in taking measures to prevent future falls, and thus would lead to more frequent falls. Risk taking behaviours related to falls should be further investigated in the future.

2.5.3.2 Fear of falling

Tinetti and colleagues (1990) defined fear of falling (FOF) as “low perceived self-efficacy or confidence at avoiding falls” when performing some global, non-hazardous activities of daily living. FOF has been associated with balance performance and postural sway (Maki, Holliday, & Topper, 1991). Arfken and colleagues (1994) revealed that impaired balance was present in 85% of the subjects "very fearful" of falling. Also, FOF increases significantly with age for both men and women (Arfken, Lach, Birge, & Miller, 1994). However, FOF is not
exclusively determined by physical vulnerability. Liddle and Gillear (Liddle & Gillear, 1995) reported that 25% of patients expressed a significant fear of falling and their fears were primarily related to their emotional rather than physical status. Many people with poor balance or a history of falls remain confident, while FOF is not uncommon among those who have never fallen (Yardley & Smith, 2002).

In many respects, FOF is a reasonable response to a likely and potentially risky event and could be regarded as the first step for preventing falls. Thus, while some level of FOF is reasonable and can promote effective coping skills for preventing falls, too much fear may compromise physical and mental well-being. In some cases, FOF can lead to deconditioning and thereby possibly increase the risk for falling (Friedman, Munoz, West, Rubin, & Fried, 2002), compromise social interaction (Lawrence et al., 1998), increase risk of isolation, depression (Clague, Petrie, & Horan, 2000), and also impacts on the quality of life (Suzuki, Ohyama, Yamada, & Kanamori, 2002) of elderly people.

According to Chandler and colleagues (1996), fear of falling might not necessarily be predictive of future falls when controlling for depression, mobility, and ADLs, as fear of falling was found to be neither a consequence nor a predictor of falls. However, due to its common occurrence in the elderly and the effect on an individual's activity level, quality of life and mobility (Chandler, Duncan, Sanders, & Studenski, 1996), fear of falling must not be viewed lightly when evaluating the risks for falling in elders.

2.5.3.3 Fear of loss of independence

Fear is an emotion caused by identifying possible impending events. Interestingly, some elders who have experienced repeated falls may not fear falling again. What they are truly worried about is the loss of independence, as the deterioration in physical mobility as a consequence of the fall may lead to the possibility of being restrained in a wheelchair or
restrained some other way (Wright, Aizenstein, Vogler, Rowe, & Miller, 1990). In general, there is a fear of the inability to maintain independence after a fall as this could lead to a loss of personal freedom (Miller et al., 2009).

In Chinese culture where filial piety is valued, elders fear that they would become a bigger burden to their children. When health events such as a fall occur, Chinese are socialized to concentrate on the consequences on interpersonal relationships and social obligations rather than on personal feelings (Shih, 1996). For lower social class families, the sense of being a burden to families would be of greater concern because they may not be able to fulfill their usual role expectations (e.g. babysitting, cooking, and chores) at home.

Risks and fears are important psychological responses closely related to health problems and falls among the elderly. Little reported research has investigated this issue in Chinese elders living in North America. The process of managing these responses from the perspective of community-dwelling Chinese elders in Toronto may be explored in future studies.

As seen in Sections 2.5, a fall may impact both the physical and psychological well-being. Now, it is important to review what has been written in the literature to address the perspectives of fallers: how they define, perceive and manage a fall.

2.6 Qualitative research in falling

Undoubtedly, quantitative studies and reviews provide useful information that influences clinical decision-making and interdisciplinary care practices in falls management and prevention. However, falling is also a deeply personal experience, since the individual context within which each fall takes place is different for each faller: the environmental circumstances, life experience, attitudes towards recovery, emotional vulnerability, and cultural practices and beliefs. The interaction of these multiple factors create a complex picture in every case
(Sadavoy, 2009), making it impractical to investigate and measure each using quantitative assessment tools.

In recent years, a few investigators have begun to explore the psychosocial factor of falls, which is conceptualized as factors that potentially relate psychological phenomena to the social environment and to pathophysiological changes (Hemingway & Marmot, 1999). Using a qualitative approach, researchers begin to assess personality-based factors such as perceived control and optimism (Jacelon, 2007; Ruthig et al., 2007). Other researchers focused on the development and management of fear of falling (Huang, 2005), explored the meaning of fall risks (Horton, 2007), and examined older people’s views on falls and falls prevention, based on their own experience (Ballinger & Payne, 2000; Kong et al., 2002; Porter, 1999; Roe et al., 2009; Simpson, Darwin, & Marsh, 2003). Together, these studies paint a psychosocial story of the fallers’ experience.

Falling may be perceived as a traumatic event, and generate a situation in which fallers begin to reassess their self-image and identity. Due to the stigma associated with falling, individuals are strongly motivated to underplay their personal susceptibility when asked about their fall experience (Ballinger & Payne, 2000; Horton, 2007; Kong et al., 2002). The language used to describe falls by older people avoids connotations of personal vulnerability. Although falling is an emotional topic, some fallers may factually describe the fall incident, without adding personal feelings (Kong et al., 2002). Some fallers may even deny that they had fallen by stating they had forgotten the fall (Kong et al., 2002). This lack of emotion or attempt at denial may be a type of defense mechanism of displaced blame (Kong et al., 2002). Some fallers emphasized their commendable personal attributes, such as being competent and able to manage and care for themselves, and perceived their falls to be related to bad luck, or to the incompetence of others (Ballinger & Payne, 2000). Ballinger and Payne (2000) also reported
that several fallers spontaneously and specifically mentioned that they had not been drinking at the time of the fall, thereby asserting that they had not been engaged in any disreputable activity which had caused them to fall. Men, in particular, tend to portray themselves as “rational and responsible individuals” as a way to sustain their public self (Horton, 2007), and view themselves as intact (Kong et al., 2002). The identification of falling as a significant health problem for older people by the public health sector may have negative implications for fallers. Many fallers are reluctant to disclose the occurrence of a fall (Kong et al., 2002), or are unwilling to associate themselves with falling events to avoid being negatively stereotyped as frail and vulnerable (Ballinger & Payne, 2000). This has obvious implications for the manner in which the issue of falling is approached and discussed with older people, also suggesting that sensitivity is required when studying falls.

A fall may awaken a new awareness in the fallers, of the changes in their aging body, and their ability (or inability) to get up from a fall (Porter, 1999). Accepting and embracing these age-related changes, and the belief that falling is a normal part of the aging process is essential when fallers manage their fear of falling (Huang, 2005; Lee et al., 2008), since older people who reflected on age as a factor in falls know their limitations (Simpson et al., 2003), and are more willing to take preventive approaches, such as installing safety hand rails at home (Roe et al. 2008). This belief is also a reason for elders to decrease activity levels, to “take care”, to perform age-appropriate activities, and to be receptive to help (Horton, 2007; Kong et al., 2002; Lee et al., 2008; Roe et al., 2008; Simpson et al., 2003).

It is evident that fallers do have direct or indirect contact with health professionals when seeking immediate help in order to seek advice on making adaptational changes, and managing the physical and psychosocial consequences of falls. Therefore, the way that health professionals present themselves, and the manner they use to interact with an elderly faller is an
important determinant of how willing fallers are to share their views, and how responsive they are to suggested changes.

There is also a shortage of qualitative studies on falls with a cultural focus. Kong and colleagues (2002) commented on some culture specific beliefs and practices that affect the perceptions of the fallers. For example, they reported on the help-seeking behaviors of Chinese and concluded from their data that older Chinese have a strong desire for care from family members, as well as an expectation of filial piety from younger generation (Kong et al., 2002). Culture is a learned behavior that shapes attitudes and encourages certain types of behavior over others (Minami, 2002). Cultural values and beliefs determine the fallers’ responses to health, illness and nursing care (Shih, 1996). For this reason, studies with a cultural focus are a valuable source of information when it comes to understanding how ethnic communities or immigrant groups perceive falls and the causes of falling, how they approach health care, and how receptive they are to preventive measures.

2.7 The Andersen’s Behavioural Model of Health Services Utilization

This dissertation focused on the perspective of older Chinese-Canadian fallers by interviewing them. Recognizing their conceptualization of health and how their cultural beliefs, knowledge, and values shape their experience within the Canadian context is essential to provide appropriate service for these fallers. “Chinese Philosophy and Culture in the Context of Health”, and the “Explanatory Models of Illness under the Influence of Chinese Philosophies” as discussed in Section 2.2 are useful in guiding the development of the research questions and the subsequent analysis. Another conceptual framework that may be useful as an organizing tool in the study of older Chinese immigrants’ psychosocial responses to fall and their management of fall consequences is the Andersen’s Behavioural Model of Health Services Utilization.
2.7.1 Development of the Model

The original behavioural model was developed in the late 1960s to assist in understanding why people use health services (Andersen, 1968). Specifically, the model provided measures of access to medical care, and assisted researchers in identifying conditions that either facilitate or impede utilization (Andersen, 1968). The model’s unit of analysis originally was the family and later shifted to the individual in order to take into account the potential heterogeneity of family members (Andersen, 1995).

The model has gone through four major phases of development (Andersen, 1995). Phase One is the initial behavioral model which suggests that health services use is determined by societal factors, health services system factors, and individual factors. This further suggests that an individual's access to and use of health services is considered to be a function of three characteristics: the person’s predisposition to use services, enabling (or impeding) factors, and their needs for care (Andersen & Anderson, 1967; Andersen, 1968).

In the 1970s, Aday and other collaborators developed Phase Two of the model. In this phase, the health care system was included, owing to the recognition of the importance of national health policy. Consumer satisfaction was also added in this phase as an explicit outcome of health services (Fleming & Andersen, 1986). During the 1980s though the 1990s, a Third Phase of the model included both perceived health status and evaluated health status as outcomes of health services. It also acknowledges the external environment and personal health practice as important inputs for understanding use of health service (Andersen, Davidson, & Ganz, 1994). A final phase model has gained complexity by adding feedback loops, which highlight the dynamic and recursive nature of the model (Evans & Stoddart, 1990).
2.7.2 Components of the Model

Despite the several modifications, the basic premise – that health services use is determined by societal factors, health services system factors, and individual factors – remains unchanged. The model also suggests that an individual's access to and use of health services is a function of three characteristics: predisposing factors, enabling factors, and needs, and is depicted in Figure 2.1 (Andersen, 1995).

Predisposing factors refer to the socio-cultural characteristics of individuals that exist prior to their illness, and include those that describe family composition and demographics (e.g. age, gender, family size, and marital status), social structure (employment, social networks, social interactions, and occupation, education, ethnicity and culture), and health beliefs (attitudes, values, and knowledge that people have concerning and towards the health care and disease). Those factors act as indicators of a greater propensity toward, but are not directly
responsible for service use (Andersen, 1968). For example, variables such as ethnicity suggest the importance of lifestyle and environmental influences on individuals’ decisions to seek care. People who strongly believe in the value of health care or physicians might be more likely to seek care than those who do not have these beliefs. Andersen (1968) noted that some characteristics, such as education and occupation may be closely related to the enabling factors, but are classified under predisposing factors since they precede the enabling factors in time.

The enabling factors refer to the logistical aspects of obtaining care: resources or means that enable individuals to obtain service, as well as resources or means that may impede service use. These include individual, family and community resources, such as health insurance, income, regular sources of care, availability, accessibility and affordability of services, and residence, and the accessibility of those resources (Andersen, 1995).

The need factors have been conceptualized either as need perceived by the individual or need evaluated by professionals, which are the most direct and important cause of health service use. In other words, the presence of predisposing and enabling conditions is necessary, but not sufficient in service use. The need factor is considered a more immediate and powerful predictor of service use (Andersen, 1995).

Use of health services makes up the final component of the model. Considering the degree of choice individuals can make, Andersen (1968) made a distinction between discretionary and non-discretionary utilization, as he suggested that the contribution of each of the three factors as a predictor is determined by the level of discretion of service use. Therefore, the more discretionary the behaviour, the more important will be the predisposing and enabling factors in explaining service use behaviour. On the other hand, when there is little discretion to be exercised due to severe health conditions or in case of hospitalization, need tends to be a primary indicator of service use behaviour (Andersen, 1968). For example, hospitalization
would be classified as low discretionary, physician visit as medium discretionary, and dental care as high discretionary.

2.7.3 Application of the Model in Ethno-cultural Research

The behavioural model of health service utilization was evaluated as the most frequently used and widely applied framework for studying health service utilization (Bradley et al., 2002). This model is not only applied to health service use in general, but also to specific service use, such as mental health service use (Tiwari & Wang, 2008). It has also been examined in different populations, including elders (Gelberg, Andersen, & Leake, 2000; Lai, 2001). Several studies even used the model to examine service utilization among older Asian immigrants, including physician visits, hospital visits, home- and community-based care programs, long-term care, Chinese senior center, and traditional healers (Bradley et al., 2002; Jang, Kim, & Chiriboga, 2005; Lai, 2001; Lai, 2008; Miltiades & Wu, 2008; Pourat, Lubben, Wallace, & Moon, 1999; Shibusawa & Mui, 2008). However, with the rapid growth of the older Asian immigrant population, this group is still underrepresented in the published work.

Andersen (1995) himself agreed that only by careful integration of cultural and structural variables could the behavioural model best explain service utilization for ethnic minorities in their social contexts. However, when the model was applied to explain utilization behaviour among minority groups, some researchers found that it was not sensitive to the diverse cultural and structural barriers in health care (Wolinsky & Johnson, 1991). Modifications had to be made to the model before it was applied to ethno-cultural research involving immigrants (Lai, 2008; Miltiades & Wu, 2008). For example, immigrant status (citizenship, birth place, national origin, and the years in host country) was included in the analysis as an enabling factor (Miltiades & Wu, 2008). In some studies, English-speaking ability and traditional value were also included as enabling variables (Aroian et al., 2005). Furthermore, Pourat and colleagues
(2000) pulled out cultural beliefs as independent factors along with predisposing, enabling and need factors. In their study, cultural factors include perceptions of health, immigrant status and other cultural beliefs.

2.7.4 Proposed Adaptation of the Model

In the current study, other dimensions are considered and included in the model, and include "beliefs," which include attitudes toward health services and knowledge about falls, as well as psychosocial factors. "Beliefs" as described by Andersen and Newman (Andersen & Newman, 1973) may not adequately capture the breadth of psychosocial factors relevant to ethnicity-related variations in the management of fall consequences, as fallers may utilize a wide range of long-term rehabilitation and community-based social programs to assist with routine personal tasks about which individuals may have specific knowledge and strong attitudes. Alongside with these attitudes, other cultural beliefs as described in Chapter 2 including perceptions of health and traditional Chinese values, may be considered in the specification of predisposing, enabling, and need factors.

2.8 Research objectives

Although older Chinese immigrants have lived in Canada for an average of 19 years, language barriers, lack of knowledge and understanding of the existing service system, low acculturation levels, relative cultural isolation in homoethnic communities, and an array of adjustment issues may continue to persist (Lai & Kalyniak, 2005; Lai & Chau, 2007). Older Chinese immigrants have to struggle with the effects of aging as well as these socio-cultural-related issues and thus, at a double jeopardy. One of the biggest adversities faced by this population is falling. As demonstrated in the literature review, there is a dearth of studies that explore the cultural attributes of falls. Cultural beliefs and characteristics such as a longstanding tradition of withstanding hardship, a high tolerance for distressing circumstances and a strong
sense of interdependence with family and social support (Parker et al., 2001) may play a role in how Chinese immigrants manage a fall and its subsequent events and therefore deserve thorough investigation.

The aims of this study were:

1. Understand the emotions and experience of Chinese elders who have fallen during and after the fall,

2. Explore the roles of cultural and immigrant status factors in affecting how older Chinese immigrants respond to falling.
3 METHODOLOGY

3.1 Qualitative Research Method

The purpose and questions of a study should be addressed using appropriate research methodology (Speziale & Carpenter, 2002). For the current study, the nature of the research topic and the research questions encourage the use of a qualitative design.

Qualitative research is distinguished from quantitative research by unique characteristics that are based on a number of philosophical beliefs about the world. For example, qualitative research operates within the constructivist framework, wherein realities about the world are subjective and multiple. The epistemology of the constructivist paradigm is closely associated with community-building and partnership, as phenomena are described from participants’ perspectives and interpreted by the researcher, and realities about the world are constructed by each participant and researcher (Silverman, 1993). Qualitative research also acknowledges researchers as instruments, as the researcher does not aim to achieve objectivity in a project by distancing himself or herself from the participants but instead interacts with them, often over long periods of time (Creswell, 1994). Lastly, qualitative research reports data that are descriptive, and therefore, offers opportunities to describe human experience, interpret complicated social phenomena, and understand human activities in the social context.

The research questions of this study are ideally examined using qualitative methodology for their answers because the experience of participants is of central interest. As Merriam (Merriam, 2002) states, “qualitative researchers are interested in understanding the phenomenon of interest from the participants’ perspectives, not the researcher’s”. Qualitative research methods supported the set of research questions I developed to explore older Chinese immigrants’ experience and perspectives of falling and fall management in a complicated
context, by guiding me in the acquisition of rich and in-depth information from the participants, which could not be achieved through quantitative research.

Holstein and Gubrium (1995) described data analysis as a process to “systematically grouping and summarizing the descriptions, and providing a coherent organizing framework that encapsulates and explains aspects of the social world the respondents portray”. Therefore, the results are not a summary and organized version of the participants’ words. Instead, the researchers have the responsibility to deconstruct the conversations, and present the essence of the narrative dramas of lived experience (Holstein & Gubrium, 1995). The lived experience of a person provides the frame of reference as he or she finds meaning within a particular culture and place in time.

3.2 Ethnography

Under the general heading of qualitative research, four research methodologies are frequently used in health research: Phenomenology, grounded theory, case study, and ethnography (Liehr, Marcus, & Cameron, 2005). Green and Thorogood (2004) gave a brief explanation for each methodology: “Phenomenology is a methodological approach that addresses the ‘essences’ of phenomena. Grounded theory is an approach to qualitative research based on ‘discovering’ theory from data, with an associated set of explicit techniques for analysing data. Case study is an in-depth study undertaken of one particular ‘case’, which could be a site, individual or policy. Ethnography is an approach to research directed at questions of “how social order is produced through analysing how people make sense of the world”.

Certain overlaps are noted in these research methodologies but ethnography emerged as the most suitable to design and guide this dissertation because ethnography “is the only research method whose sole purpose is to understand the life ways of individuals connected through group membership” (Speziale & Carpenter, 2002). Ethnographic methods are perhaps the most
“naturalistic” in that they attempt to guide the research in generating in-depth knowledge about a setting over time, in order to understand how and why people believe and behave as they do. It provides participants with the opportunity to describe their cultural world in their own words (Speziale & Carpenter, 2002).

3.2.1 Characteristics of Ethnography

This section addresses the essential characteristics of ethnography which were significant in guiding the current study.

**Focus on culture:** Ethnography is essentially a cultural study or cultural description using analysis that interprets meanings. By understanding and applying these perspectives, ethnographic researchers speak on behalf of their subjects as a means of empowering them by giving more authority to the subjects’ voice as a means of invoking social consciousness and societal change (Thomas, 1993). To achieve this, ethnographic researchers are required to “immerse” in the culture, by living with the people being studied and performing participant observation, which may last for several months or more (Speziale & Carpenter, 2002).

**Reflexivity:** In many quantitative traditions, the assumptions of positivism imply a striving for “objectivity”. Positivist epistemology assumes that a stable reality may be known and understood through empirical methods, and thus, subjective impressions and partial accounts are considered to be a source of “bias”. In qualitative traditions, however, subjectivity and partial accounts are inevitably part of the research process, as it is impossible to have a field of study that is untainted by values, and impossible for the researcher to stand outside those values and subjectivities. The researcher needs to realize that in the pursuit of the emic (or the insider’s) perspective of the social world, he or she is capable of altering the particular culture by bringing the etic (or the outsider’s) perspective to the field of study, especially during the generation and analysis of the data (Green & Thorogood, 2004). In qualitative research the
researcher is an instrument of knowledge creation within the research process, and should engage in a "continuing mode of self-analysis and political awareness" (Callaway, 1992) in order to capture the dialogue between "what I know" and "how I know it" (Reinharz, 1997). According to Reinharz (1997), for example, the researcher brings multiple selves to the research process. Through analysis of her field notes from a kibbutz study, she identified a total of 20 different selves, which were divided into three categories: brought selves (the selves that historically, socially, and personally create our standpoint), research-based selves (the selves that generated the research), and situation-created selves (the selves that developed during the fieldwork).

*Researcher as instrument:* In ethnography, the researcher may adopt any of the four potential roles depending on his or her levels of participant observation: Participant, participant-as-observer, observer-as-participant, and observer (Gold, 1958). Participant observation is hardly objective, since researchers often become participants in the cultural scene. The researcher will experience both the emic and etic view, which facilitates better understanding of the topic of interest.

*Iterative nature of data collection and analysis:* Although specific research questions have been decided before a study, there are no or minimal preconceived notions about the outcomes of the research. Therefore, the questions themselves are subject to change as the study progresses. As well, qualitative researchers begin their studies with minimal commitment to *a priori* assumptions and theory (Glaser & Strauss, 1967). According to Taylor and Bogdan (1998), it is often toward the latter stages of a research study that a researcher will be ready to start familiarizing himself with literature and theoretical frameworks relevant to the research, most appropriate during the intensive analysis stage of the research. The analysis of data may then lead to still other questions about the culture (Speziale & Carpenter, 2002). The iterative
process continues until “time and resources do not allow for continuation” (Speziale & Carpenter, 2002)

3.2.2 Schools of Ethnography

There are four main ethnographic schools of thought. Classical ethnography is an involving process, in that it requires the researcher to spend considerable time in the specific setting, constantly observing, describing and interpreting behaviours. The purpose is to describe the behaviour and demonstrate why and under what circumstances the behaviour took place (Green & Thorogood, 2004). Systematic ethnography, contrasts with classical ethnography in that, instead of providing a description of people and their social behaviours, it focuses on the structure of the culture and what organizes the behaviours of the study group (Liehr et al., 2005). Interpretive ethnography is interested in studying the culture by analyzing the meanings of social interactions. Critical ethnography is a method that encourages collaborative effort between researchers and participants. Together they “create a cultural scheme”, or collections of knowledge and past experiences of certain cultural groups (Speziale & Carpenter, 2002).

3.2.3 Focussed Ethnography as the Method of Choice

Another important type of ethnography adapted from the above ethnographic schools of thought, and frequently used in health research is focussed ethnography. This is the qualitative design I have chosen for the study. Focussed ethnography differs from traditional ethnography in that the researcher identifies a topic before commencing the study (Morse & Richards, 2002). However, focussed ethnography is like critical ethnography in that it is a “reflective process of choosing between conceptual alternatives and making value-laden judgements of meaning to challenge research, policy and other forms of human activity” (Morse & Richards, 2002). The researcher gives authority to the subjects’ voice by speaking on their behalf. The goal is to call upon social consciousness and bring about societal change (Morse & Richards, 2002).
Therefore, focussed ethnography employs a critical perspective and draws on elements of critical social theory. In essence, critical social theory moves beyond describing and explaining the “what is” and the “why and how” society tends to hold together, and instead, identifies the inherent conflicts and contradictions in social systems and actions that can result in human domination. Some other characteristics of this theoretical framework are outlined below.

3.3 Theoretical Perspective – Critical Social Theory

Critical social theory consists of a series of ideas which emerged during the 1920s and 1930s from the Institute of Social Research at the University of Frankfurt in Germany (Wells, 1995). Theorists such as Habermas have contributed to the further development and reinterpretation of the theory. To date, there is no unified definition. However, historical and contemporary versions of this theoretical framework share many fundamental tenets.

*Emphasis on social disparity:* Critical social theory operates around the word “difference”. It sets out to examine how the underlying structures and discourses in society result in differences between social groups, which subsequently produce population inequalities, and differences in belonging, opportunities and fulfillment. For example, societal structures may determine the types of employment and wages that are made available to certain groups of people, distribution of wealth, access to education, and availability of healthcare services (Stevens, 1989).

*Examination of societal power relations:* As a form of science and inquiry, critical social theory further examines relationships of power (Grams & Christ, 1992). It suggests that differences between social groups are based in social power structures where power, privilege and oppression are exercised and enacted. Through the internalization of ideologies such as racism, sexism, and classism, these (mis)representations of social processes are made to appear
inevitable, natural, and constant, yet serve to reinforce interests of the dominant group (Allen, 1987).

*Research to effect social changes:* This theoretical framework advocates for a type of consciousness that looks at how some social structures operate to oppress some members of society while systematically privileging others. Its emancipatory intent seeks to challenge conventional assumptions and social arrangements to move beyond the "what is" to the "what could be" (Thomas, 1993). In other words, critical social theory is an action-oriented theoretical approach often times used in health research (Henderson, 1995). The theory may be used to assess how socially derived power structures filter into healthcare practices, both in terms of how deficits in health are assessed and managed, and how they affect communication between health care professionals and patients.

### 3.4 Summary

In brief, focussed ethnography is the method of choice in this study. It facilitates and provides participants the chance to describe their experiences, without being bound by a standard set of questions. Reflection is encouraged as it allows the researcher to better understand the complexities and the underlying cultural influence affecting psychosocial responses in Chinese elders who have fallen. This methodology has its roots in the critical social theory, which is a useful paradigm for research and practice. The theory guides the entire research process by providing a framework to address the fundamental and social causes of disparities as older Chinese immigrants attempt to access health services after a fall. This theoretical model of science helps us analyze existing problems and form partnerships with the communities and Chinese elders who have fallen, in order to stimulate social change.
3.5 Methodological Stages

An ethnographic approach was adopted because of the myriad of factors – cultural, emotional, and social – and their complicated interactions that must be explored in order to understand the experience of falling in Chinese elders who have fallen. This section documents the data collection and analysis methods in complete detail. There are four stages in the research process: 1) participant observation, 2) key informant interviews, 3) pilot interviews, 4) face-to-face interviews.

Ethics approval was secured at the outset of data collection. The study protocol was approved by the Research Ethics Board at Mount Sinai Hospital, a fully affiliated teaching hospital of the University of Toronto. Before each interview, the researcher explained the goal of the study, the potential risks to participants, the confidentiality of all data and their right to withdraw from the study at any time. Written informed consent was received from all respondents prior to the study (Appendix A).

3.5.1 Stage One: Participant observation

In participant observation, researchers try to convey a sense of being there and experiencing settings firsthand (Taylor & Bogdan, 1998). The researcher “participates, overtly or covertly in people’s daily lives for an extended period of time, watching what happens, listening to what is being said, asking questions; in fact collecting whatever data are available to throw light on the issues with which he or she is concerned” (Hammersley & Atkinson, 1983). By doing so, the researcher understand the circumstances from within which the participants see the world. For the present study, participant observation occurred in the context of my role as a Ph.D. candidate, and consisted of visits made to the Adult Day Program run by Carefirst Seniors and Community Services Association (a description of this association is given in
Appendix B). The observation period spanned six months and totalled around 80 hours of observation.

I presented myself to the Chinese elders at the Adult Day Program as a student observer. Elders might freely approach me for casual conversations during the program. One of my initial observations was that most Chinese elders who went to the programs were relatively healthy and mobile, with a very small number of them in wheelchairs or who required walking aids. It is possible that I was observing a younger, more active and healthier population of Chinese elders, because of their willingness to leave their house and participate in community programs. There were around 20 to 25 of them in a small “activity room” every day, and most activities at the center did not require Chinese elders to move around. Typical programs might include stretching arms and legs in their seats, news group discussion, lunch, arts and crafts, mah-jong, and karaoke. Physiotherapists or registered nurses regularly came in to run special clinics, for example, diabetes workshops. Transportation was provided to and from the center for a small fee.

After preliminary observation, I identified and approached 20 Cantonese-speaking elders from the Adult Day Program, and talked to each of them individually about health issues, and explored their views on falling. Chinese elders voluntarily signed up for the interviews on a sheet that was provided at the reception area at the program center. Four major questions were asked during these informal meetings: 1) Please tell me about your health, 2) Have you fallen before? 3) What are some reasons that people fall? and 4) How do you prevent falling? Notes were taken to record comments from the Chinese elders.

One elderly lady told me about all the people she had to see every day: health professionals, staff members from the building, physiotherapist, social worker and other professionals. All these people came in with an agenda. As a result, she felt like she was
constantly being evaluated and she had to “put on her best behaviours” so that she “wouldn’t be put into a nursing home”. Having adopted the student identity and the fact that I am a younger Chinese, made the Chinese elders feel more at ease while talking to me, as the conversations during these casual meetings flowed naturally, and elders had no reservations sharing their opinions on falling. Speaking the same language and sharing a lot of the same cultural values with the elders, I felt connected with them. I assume that this feeling was reciprocated, as some elders remarked that I reminded them of their granddaughters. The majority of the elders had experienced falling (16 out of the 20 interviewed), and cited aging and carelessness as the main reasons for falling. Chinese elders were also open to discussions about health conditions they were encountering. I sensed that dealing with multiple physical conditions made up a large part of their lives. However, they were less willing to share their emotional or psychological issues.

The goal for both observation and informal interviews was to identify general attitudes, responses and behaviours with respect to falling, as well as specific issues that were held to be particularly important to, or that created the greatest difficulties for, Chinese-Canadians. As a result of the observations carried out in this stage, it became increasingly obvious that the vast majority of these individuals held values and perceptions relating to health, illness, and health care access that differed significantly from those of their Western counterparts. Field notes taken indicated that dealing with falling and the consequences of falling, was not of high priority for these individuals. Many Chinese elders did not hesitate to share their views on falling, but most did not respond freely when asked about “What do you do to prevent falling?”. As one faller stated it, “You don’t know when you will fall, so why think about something that is uncertain?” When they talked about the consequences of falling, Chinese elders were most concerned about being a care burden for their children. It appeared that for most Chinese-
Canadians, responses to falling and recovery plans were made to minimize interruption to the “harmony” of the family and extended family.

3.5.2 Stage Two: Key informants interview

Key informants refers to individuals who can provide detailed information and opinion based on their knowledge of a particular issue and are willing to share their knowledge and skills with the researcher. These individuals may also have access to perspectives or observations otherwise denied to the researcher. Three key informants from the Chinese-Canadian community were approached and their expertise was sought on matters regarding falling in Chinese elders. The group included one social worker from Mount Sinai Wellness Center, one case manager from St Paul’s L’Amoreaux Center, and one building manager from Garden Terrace, which is retirement housing associated with Yee Hong Center for Geriatric Care (description of these agencies is given in Appendix B)

Individual meetings were set up with these key informants and they were asked these questions:

1. In your opinion, how seriously has your clientele/residents been affected by falls?

2. What are some common responses of fallers?

3. Please tell me about any rehabilitation services or fall prevention programs tailored for Chinese elders who have fallen.

Questions were posed in an open-ended and unstructured manner, to ensure that the interviews would be as generative and exploratory as possible. Notes were taken during these meetings. From these notes, four major areas of concerns emerged, identified below and supported by the direct quotations of the respondents:

1. Chinese elders heavily rely on an emergency response system when they require assistance.
- We (building management and support team at Garden Terrace) put our residents’ safety and well-being as our first priority and respond to calls efficiently. Our residents have been well-informed and educated about the use of emergency response system and they do not hesitate in activating it in times of needs, including in the event of a fall.

2. Chinese-Canadians are likely to view falling negatively, in particular, as a possible cause for nursing home admission.

- If you ask any Gong Gong or Por Por (male or female Chinese elder), they would tell you that they would avoid being admitted into old people’s homes at all costs. Chinese people dread going to homes and refer to it as a “one-way street”. Falling may potentially disable them, causing a loss in independence, and a subsequent admission to a long term care facility... it’s not a good thing.

3. Adult children play an important role in making big decisions for their parents.

- If (the consequences of) the fall require that further arrangements be made, the children will be responsible. Making big decisions is often a group process for Chinese.

4. Chinese people are passive in enrolling in falls prevention.

- Chinese elders will participate in something if you invite them personally. We case managers have to take a proactive role in planning, and personally inviting high-risk fallers to falls prevention programs.

3.5.3 Stage Three: Pilot Interviews

A preliminary, semi-structured interview guide (Appendix C) was developed specifically for this study based on the findings of stages one and two, and a thorough literature review of Chinese culture, health and falling. The guide was intended to provide a standardized stimulus during interviews. Also at this stage, the two major research questions were developed and formalized:

1) How do older Chinese immigrants experience falling?

2) What roles do psychosocial factors, such as cultural and immigrant status factors play in affecting how older Chinese immigrants respond to falling?
Two Chinese-Canadian seniors were interviewed from the Toronto community in order to assess: 1) the respondents’ attitudes toward the topic areas and their willingness to discuss issues relating to falling, 2) the general comprehensibility of the questions, and 3) the time required to carry out the interviews.

3.5.3.1 Recruitment

Respondents were contacted through key persons at Mount Sinai Wellness Center. The following criteria for inclusion or exclusion of respondents were applied at stage three (pilot interviews) and stage four (face-to-face individual interviews).

Inclusion criteria were as follows:

Chinese immigrants eligible for the study:

1. had experienced a fall within two years of the interview, so that they could provide a personal account retrospectively;

2. were community-dwelling in the Greater Toronto Area. Older adults living in the community have access to different resources than those living in long term care facilities in times of a fall; community-dwelling individuals are under-researched, and the nature of their response to, and the impact of, a fall may be different;

3. were fluent in Cantonese. Cantonese was selected as the study language because of the prevalence of its use among Chinese-Canadians;

4. were 70 years of age or older. Senior citizens were selected because they have a fall prevalence of 33% and the sharing of their personal experience will help address the research questions;

5. were born either in Hong Kong or in the People’s Republic of China. This criterion was added in order to capture some of the more traditional Chinese attitudes, and because of the prominence of Cantonese-speaking individuals from these regions.
Respondents were excluded under the following conditions:

1. unable to understand and follow along with the research protocol;
2. unwilling to continue with deeper probing as part of the research protocol.

3.5.3.2 Interview process

The interview guide (Appendix C) contained questions that explored the following six subject categories: 1) Demographic information, 2) Perception of general health status, 3) Description of the latest fall, 4) Feelings about the latest fall, 5) Views about future falls, 6) Social networks. In designing the interview questions, the cultural concept of explanatory model of illness, and the Andersen’s Model of health service utilization described in Chapter 2, were used to assist in the formulation of the questions.

Interviews were conducted in Cantonese and audio-taped. During the interview process, respondents were encouraged to express freely their thoughts and feelings about their fall-related experiences. The researcher tried not to interrupt when a participant was freely talking, but sometimes asked for clarification or confirmation, or guided a respondent’s attention back to the topic of falling. The interviews were transcribed and analyzed with respect to: 1) the respondents’ comfort level with the topic, 2) comprehensibility and feasibility of the interview guide.

Interview time averaged 90 minutes per respondent. Respondents did not appear to be experiencing anxiety during the interviews in relation to any of the six topic areas. Some questions needed rephrasing in order to be better understood by the respondents. For example, both respondents were confused by the question, “Do you feel connected with any other communities or organizations?” but responded better when asked, “Please tell me about any organizations or clubs or programs which you are associated with in the mainstream or Chinese
community.” It was also noted that the original sequencing of the questions needed to be adjusted. The updated interview guide is attached in Appendix D.

3.5.3.3 Data Analysis

Constant comparative method of analysis was applied at this pilot stage. This method was developed by Glaser and Strauss (Glaser & Strauss, 1967) who applied it to the analysis of texts transcribed from taped interviews. The process begins with an initial phase of open coding. Open coding refers to the step of reading the transcripts carefully, and identifying all categories present, rather than coding for specific themes. The transcripts were read with the research questions in mind, which are stated here again: 1) “How do older Chinese immigrants experience falling?”, and 2) “What roles do psychosocial factors, such as cultural and immigrant status factors play in affecting how older Chinese immigrants respond to falling?”. Sections of the transcripts were assigned codes which identified various topics of theoretical concern. These preliminary codes were purely descriptive. For example, one early category that was identified was “responding with Emergency Response button”. Through a continual refocusing and refinement of the data generated, new themes of increasing subtlety and complexity emerged.

3.5.3.4 Summary of findings from Stage three

From these pilot interviews, emerging categories were noted, as illustrated by the following quotations. The interview guide was updated to explore these in greater detail:

1. Religion, especially Christianity, has become a source of spiritual and social support after a fall.

   - When I fell, I was in pain. I almost fainted from the pain. I continuously prayed – we believe in God, so we leave everything up to Him. So that night, God made me feel calm and peaceful. I slept until the morning.

   - Later (on Sunday), I went to church. There was this lady, she came up to me and said, “Wow, your wrist may be fractured!” I said, “Really? But I’m not
in pain!” She said, “Yes!”... I was lucky that I went to church in the end. Or else I wouldn’t know I broke (my wrist). My brothers and sisters in God took care of me.

2. An emergency response system may be activated if the fall occurs indoors, but respondents feel helpless when an outdoor fall occurs.

- If I couldn’t get up (from a fall), I can call my daughter but she’ll probably be working. It’s not good to bother her... wait on the ground, I think? Somebody would walk by eventually. I don’t know. Inside (the building), we have the “life-button”.

3.5.4 Stage Four – Face-to-face interview

As indicated at the beginning of this chapter, stages one and three laid the methodological foundations for stage four, extensive face-to-face interview. The inclusion and exclusion criteria, applied earlier to the respondents involved in stages three were once again applied in stage four.

3.5.4.1 Recruitment Sites and Participant Selection

Individuals were recruited from three major Chinese community services or housing agencies in the Greater Toronto Area (GTA): Mount Sinai Wellness Center, Carefirst Seniors and Community Services Association, and St Paul’s L’Amoreaux Seniors Center. The selection of interview participants was based on recommendations from the organization’s management, or key informants at these organizations. Some were arrived at through my observation and participation in the community. By engaging the help of contacts from three major Chinese community agencies, I intended to interview a heterogeneous group in terms of living arrangement (e.g. house versus retirement condo, living alone versus with relatives).

In most instances, the selection process involved having case managers or social workers pre-screen potential informants for willingness to participate in the study, using the inclusion criteria listed in Stage Three. Potential participants were referred to the researcher, who then contacted and set up interviews with the participants.
Theoretical sampling was applied to the recruitment process, as I selected new cases to study according to their potential for helping to expand on or refine the concepts and theory that had already been developed. For example, one emerging theory in the data analysis was that, some fallers worry about not knowing how to summon help after a fall. This did not seem to be an issue for those participants living in buildings with the emergency response system, who can easily press a button to notify staff members in times of emergency. I then deliberately sampled people living in these buildings and looked in detail at cases where people fell outdoors, to check emerging relationships between help-seeking behaviours and location of falls. Figure 3.1 (below) summarizes the sampling strategy for the current study.

3.5.4.2 Process of Data Collection:

All 18 interviews were conducted in respondents’ homes, which is a more comfortable setting that is conducive to relaxed conversations. Informed consent was obtained. The purpose of the study was explained in detail, and a consent form (Appendix C) was presented to the respondents, which they read and signed. Interviews were conducted in Cantonese and audio-taped as explained on the consent form. Although the semi-structured interview guide was adhered to, it was designed to be generative. In order words, the semi-structured interview guide allowed the research to query each respondent in a consistent manner, which ensured meaningful comparison of data across interviews. At the same time, the researcher was able to leave room for participants to introduce their own ideas, which allowed for the research to take unexpected directions. Specifically, respondents were read the outlined questions followed by probes, and respondents were encouraged to express freely their thoughts and feelings about their fall-related experiences. The researcher tried not to interrupt when a participant was freely talking, but sometimes asked for clarification or confirmation, or guided a respondent’s attention back to the topic of falling. Interviews were continued until the data was saturated and rich,
allowing for meaningful analysis. Interviews lasted an average of 90 minutes. Taped interviews were transcribed and then translated into English. A total of 30 hours of interview materials was generated during data collection.

Data collection is not just gathering information; the researcher must always actively consider meanings and relationships, and develop further questions from on-going analysis. To this end, the interviewer wrote numerous *memos*, both at the time of interviewing as well as during the translation. Memos written during interviews related to the respondents’ use of non-verbal communication, such as posture, gestures, tones and perceptible changes in emotion (e.g.
laughter or tears). Memos that are written at the time of translation capture the nuances of words or phrases, as well as the historical and social significance of certain phrases, facts, or events. These notes “included the salient points related to what the researcher had seen, heard, and thought during the data collection process” (Green & Thorogood, 2004).

3.5.4.3 Data Coding and Analysis

All steps during the data analysis phase were performed manually without any analysis software tools.

The analysis was an inductive process (Creswell, 1994), that is, the categories were not preset. Instead, they emerged from the research process. The first step of the data analysis process involved a thorough reading of all interviews and other types of data, such as observation field notes and memos. A system of open coding was then applied to the transcripts on a line by line basis. To prevent the imposition of pre-conceived impressions, the initial coding was based solely on the data. In the beginning, each transcript was treated on its own, and memos and codes were constructed on the basis of what each respondent had expressed as an individual, rather than in terms of collective themes. A list of preliminary codes was created after open coding the two pilot interviews; as new data were analyzed, the codes were refined, and new codes created.

Subsequently, data related to one theme or concept was grouped together and read through until the researcher was completely familiar with the materials. Notes, observations and queries were made at this time (Merriam, 2002), and when a new theme or category started to emerge, the researcher returned to the original data and re-examined it for evidences of that theme (Rubin & Rubin, 1995). The data within each constructed categories were compared and analyzed for nuances in their meaning. The linkages between the categories were established and new codes created.
3.5.4.4 Rigour of the study

The rigour of the study was ensured by several verification strategies, which enhance the reliability and validity of the findings. These strategies include: lengthy participation, triangulation, member check, theoretical sampling and sampling.

*Credibility* is the qualitative equivalent of internal validity. In order to establish credibility, the qualitative researcher needs to engage with the participants for a reasonably long period of time, to allow for continuous observation, and to validate data (Rubin & Rubin, 1995). In the case of this study, fieldwork was performed for approximately one year. Lengthy periods of time were spent with the interviewees, during which time they were also observed in various settings including respondents’ homes in order to gather other forms of data. As mentioned in Section 3.5.1, a total of 80 hours of participant observation occurred at the Adult Day Program.

A number of data collection methods – observation, field-notes and memo-taking, a reflective journal and individual interviews – were used to ensure *triangulation*, which is “the use of multiple and different sources, methods, and theories” (Lincoln & Guba, 1985). In some cases, the aforementioned methods yielded consistent findings and reinforced each other. In other cases, there were discrepancies, but these also enhanced the rigour of this study since the researcher was forced to reflect on the source and meaning of the discrepancies, which in turn led to new insights and understandings. Thus, triangulation ensured the development of “a more comprehensive analytical understanding of the phenomenon of interest” (DePoy and Gitlin, 1998).

*Member check* was also performed with all participants to verify interpretations and conclusions made from the analysis of transcripts. Member check was performed on the phone with all 18 interviewees individually to go over the preliminary results as the themes started to be drawn forth.
As discussed in Section 3.5.4.1, theoretical sampling was applied to the recruitment process to enhance rigor. New cases to study were selected according to their potential for helping to expand on or refine the concepts and theory that had already been developed. Also, participants were recruited from different settings, with the intention to obtain a range of perspectives on fall experience. Sampling adequacy was established when interview data reached saturation. It became clear that the data used for this study reached saturation when the analysis of the data began to produce and support the same patterns. Analysis of the last several interviews validated the existing coding scheme and produced no new codes. Similarly, the last stages of analysis in this study yielded no new insights, but rather, reinforced the patterns arising in earlier stages of analysis. Saturation brought an end to recruitment.

3.6 Researcher’s Background

The qualitative researcher is expected to present the opinions he or she brings to the research, in order to reveal biases. I would therefore like to include a short description of who I am, the life I have led up until now and some of the values I hold.

I am a Chinese-Canadian woman in my late-twenties. Born in Hong Kong into a middle-class family, I went to an English-speaking school run by the Canossian nuns during my formative years. My family and I immigrated to Canada when I was 14 years old, and we settled in Markham, a suburb north of Toronto, Ontario. Fluent in English, I had little problems adapting to Canadian ways, and getting involved with the school community and the society.

I am the elder of two girls in my family. Neither of my parents is in any way involved in science or the research arena, but they highly value learning and education, and encourage the pursuit of knowledge in any academic areas that appeal to us. My mother is the middle of ten children in a large Chinese family and worked as a teacher before I was born. My father is a Certified General Accountant and is currently employed by Yee Hong Center for Geriatric Care as
the Accounting Manager. My parents provided my sister and I with endless encouragement, creative and intellectual stimulation, and support.

Growing up in a multi-cultural environment made me appreciate diversity and I learned to accept people for their differences, cultural or otherwise. My parents, both implicitly and explicitly, instilled in me the significance of civic duty, and to do all within my power to lend a hand to vulnerable groups. They have especially taught me the importance of respecting elders. Hence, ever since I was young, I developed a special connection with the elderly population, going carolling at seniors’ homes every Christmas and volunteering at rehabilitation programs every summer. During my undergraduate years, I took up various co-op placements that required me to work with the senior population in different settings. For example, I was involved in the recreation programs at North York Seniors Center, designing and implementing activities which promoted the well-being of seniors residing in the facility. During my second year of undergraduate studies, I had the opportunity, in my capacity as a research assistant with the Murray’s Alzheimer’s Research and Education Program, to work on a project that investigated the use of restraints on residents in nursing homes. My experience with older adults has always been rewarding. I was sympathetic towards the variety of physical ailments that they have to battle every day. Since I was not medically trained, all I could do was to provide companionship and enhance their social well-being. However, my genuine and empathetic attitudes allowed older adults to freely confide in me. The more I interacted with older adults, the more I felt a sense of responsibility towards them. I was passionate about advocating for them, and providing support for their caregivers. I am also hungry to find ways to influence changes in policy in order to serve them better. All of these factors have culminated in completing the current Ph.D. project.

I consider myself privileged to be a Canadian. However, I value certain Chinese traditions such as the tradition of withstanding hardship, a high tolerance for distressing
circumstances, a strong sense of interdependence with family and social support. In terms of an ideology with which I feel comfortable, I believe our lives are pre-destined but we have to work hard to develop our potentials to the fullest. I respect my parents and I believe I am responsible for them as they age. I value collectivism and I would be as tactful as needed to minimize disruption to the harmony of a group. I observe and celebrate most Chinese festivals such as Chinese New Year and Ching Ming Festival, which is a special day to pay respect to our ancestors. Brought up as a Catholic, I am adamant about living a righteous life and expect the same of my friends and family. Also relevant to the current dissertation, I believe strongly in universal health care and other social programs that help bridge the gap between society’s rich and poor.

I bring these values and experiences to my work and I understand, to the extent of my awareness, its impact on what I write and the way I interpret the data that I collect.

3.7 Summary

The purpose of this chapter was to prepare the reader for the following chapters by introducing the practical and epistemological groundwork behind both the planning and execution of the research phase. It detailed the research methods used to meet the objectives of this study. The rationale for investigating the impact that culture and immigrant status have on psychosocial responses of Chinese elders who have fallen using a qualitative methodology was explained. Focused ethnography guided the research by treating the experience of participant’s as the central interest, allowing the participants the space to lay out the complex situation facing Chinese elders who have fallen. This chapter described the study sample and how the ethnographic study was conducted. The methods of interpretation and data analysis were also detailed.
4 RESULTS

4.1 Participant characteristics

Eighteen Chinese elders (16 females and 2 males) who had experienced a fall in the last two years were interviewed. Details about the background of these respondents are summarized in Table 4.1. The age of the respondents ranged from 71 to 94 years with a mean age of 81 years. Thirteen out of the 18 respondents experienced multiple falls. With regards to the most recent fall, 14 participants fell indoors while four fell outdoor; 13 of them were alone when they fell, while the rest were accompanied by their children or were in a public place when the fall happened. The degree of injury varied from no apparent injury to fractured femur.

All participants were immigrants, with 15 born in Hong Kong and three in Mainland China. The length of time that participants lived in Canada ranged from 6 to 38 years. Five of them were married and living with their spouses, the rest of the participants were widowed, and either lived alone (n=11) or with their children (n=2). While all participants had children, less than half of them (n=7) had children living in the same city (Toronto). All participants lived in their own homes, one in a house and the rest in apartments. All participants reported having some kind of chronic conditions. The most common physical conditions reported by these elderly Chinese participants were diabetes and hypertension. Fourteen identified themselves as Christians, three as Buddhists and one did not subscribe to any particular religion.

Mandarin was the first language for three of the participants. However, these participants were also fluent in Cantonese and thus all participants conversed with the interviewer in Cantonese. Six participants (5 female and 1 male) claimed to be fluent in English and all of them had professional jobs in Canada. Nine participants did not complete high school, six had high school diplomas, and three earned a university or college degree. All participants received
Table 4.1 Demographic information and fall characteristics of the respondents

<table>
<thead>
<tr>
<th>Total participants (n=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td><strong>Age (years) Mean age = 81</strong></td>
</tr>
<tr>
<td>70-80</td>
</tr>
<tr>
<td>81-90</td>
</tr>
<tr>
<td>91 and over</td>
</tr>
<tr>
<td><strong>Place of Origin</strong></td>
</tr>
<tr>
<td>Hong Kong</td>
</tr>
<tr>
<td>Mainland China</td>
</tr>
<tr>
<td><strong>Years of immigration</strong></td>
</tr>
<tr>
<td>10 and below</td>
</tr>
<tr>
<td>10-20</td>
</tr>
<tr>
<td>20 and over</td>
</tr>
<tr>
<td><strong>Living arrangement</strong></td>
</tr>
<tr>
<td>Alone</td>
</tr>
<tr>
<td>With children</td>
</tr>
<tr>
<td>With spouse</td>
</tr>
<tr>
<td><strong>Multiple falls</strong></td>
</tr>
<tr>
<td><strong>Fall injuries (most recent fall)</strong></td>
</tr>
<tr>
<td>No apparent injuries</td>
</tr>
<tr>
<td>Soft tissue injuries</td>
</tr>
<tr>
<td>Fractures</td>
</tr>
</tbody>
</table>

support from a pension, and four participants stated that they received regular economic support from their children.

Although we cannot generalize the relationship between demographic information and the factors influencing the psychosocial responses to falling in Chinese elders, these results provided an important context in which we might better understand the themes presented below.
4.2 Falling experience of older Chinese immigrants

The respondents in the current study shared their falling experience freely, speaking readily about how they first dealt with the fall and the related-injury; how they later managed with rehabilitation, and how they perceived the probability of future incidents. Thematic analysis of the interview transcripts was conducted, and four major themes related to responses to falling were drawn forth from the interview data: 1) Help-seeking decisions immediately after the fall, 2) Psychological impact of the fall, 3) Care and support networks, and 4) Learning from the fall. Together, these themes enrich and give full meaning to the overarching theme: “the complex psychosocial experience of Chinese elders who have fallen living in the community”.

This chapter will present direct quotes from the participants (anonymous and coded with a number) which illustrate the strength of the themes. The significance of these themes in relation to culture, immigrant status, and the Andersen’s model of health service use will be discussed in detail in Chapter 5. Transcript convention was adopted from Qualitative methods for Health Research (Green and Thorogood, 2004, p.118):

- I: Utterance by interviewer
- ...: Hesitations or pauses in respondent’s or interviewer’s utterance
- (Words): Words inside ( ) brackets indicate interviewer’s notes and thoughts during transcription, and also the interviewer’s interpretations of respondent’s responses
- [Words]: Words inside [ ] brackets indicate prompts or noises interviewer made to encourage respondent to continue or vice versa
- {Words}: Words inside { } brackets indicate emotions such as laughter or exclamations etc., and descriptions of actions

4.2.1 Help-seeking decisions immediately after the fall

In order to understand the physical response(s) of Chinese elders who have fallen, the participants were asked to “think back to the last time you fell and describe what happened”, with the following probing questions:

- Where and how did you fall?
What did you do right after you fell?

Who did you call for help?

This set of questions gave the participants a chance to begin to examine their fall experience closely. Although it could have been two years since the fall, all participants remembered the accident clearly and described their experience in great details. One major focus as they described their fall was their “immediate help-seeking behaviours”.

4.2.1.1 Compromised judgement

Immediately after a fall, a faller needs to make a decision about whether to seek help or not. This decision is influenced by the faller’s perception of how serious the injury is might be:

- Yeah, the sunglasses were scratched. I couldn’t use them. Only got scratched a little... nothing serious. [Ok] People asked if they should call an ambulance and I said no need. My son-in-law helped me to get up. I was fine – [10]

Factors that influence the decision to seek help include knowledge, awareness, and the ability to distinguish what is serious and what is not. Sometimes poor judgement may emerge after a fall. First-time fallers in the study had no expectations or knowledge of what a fall might entail, and were at a greater risk of making a wrong decision about not seeking help, as evidenced in the comment of a respondent who trivialized a femur fracture after her first fall:

- I have never seen a fracture before. When I fell, I thought I could get up. So I forced myself up. My daughter-in-law (who was walking alongside me) started yelling, ‘Do not try to move, I think your bone is fractured!’ I replied, ‘Don’t worry, I’m fine.’ Then I realized I could not move. My leg started to swell. Then I knew I needed help. – [6]

4.2.1.2 Preference for self-care

In this study, half of the respondents mentioned the use of Tieh-ta Jow (literally Falling Hit Wine), a popular Chinese liniment used to heal minor injuries such as bruises. The use of Tieh-ta Jow shows a preference for traditional Chinese regimen; however, by treating the injury with something that was meant for bruises and bumps, the respondents may delay necessary medical attention, as illustrated by these quotes:
• I wouldn’t know I broke it (my wrist)… I didn’t know what to do. I thought I was fine. So I rubbed it (the swollen area) with some Tieh-ta Jow. We are Chinese right? Tieh-ta Jow should work right? – [11]

• When I fell, I was in pain. I almost fainted from the pain. But I could get up... both of my knees were black and swollen up like grapefruits! (I had) some Tieh-ta Jow in the cupboard so I used some of that (on the bruise). When I got to church the next morning (it was a Sunday), this parishioner who is a nurse said I might need to see the doctor for (possible fractures). (It turned out) my knee cap was fractured. – [4]

4.2.1.3 Use of medical alarm system to summon help

Once Chinese elders who have fallen realized that the situation had progressed beyond their control, they then sought help. Fourteen out of 18 respondents lived in buildings equipped with emergency medical alarm systems, which allowed them to connect to a Chinese-speaking “response care associate” (RCA) manning the building, who will promptly arrange for assistance to ensure the residents receive proper care following an emergency situation such as a fall. If the fall happened indoors, activating the alarm system was the most common response of the respondents. They were well-educated about the alarm button, and were confident that they would receive good care upon activating it:

• I have seen so many people in the building being helped. There once was a resident who fell and used the Lifeline and the staff members were here very quickly. She was seriously hurt and the hospital was called. The ambulance arrived on the scene and drove her to the hospital. The family members were contacted as well. – [15]

When asked why they would not directly dial 911, which is the mainstream emergency number, most respondents stated perceived language barrier as the reason:

• 911? Other people would call (that number for me) if they saw me... I don’t speak.. (English). – [13]

• They would not understand my need. I don’t know how to tell them. The staff here in the building can assess my situation almost immediately, and they can contact the emergency people if I needed further help. – [9]
4.2.1.4 Reluctance to seek-help from unfamiliar individuals

Without the alarm system or if the fall happened outdoors, Chinese elders sometimes encountered difficulties when seeking help. Some hesitated to summon help, even when help was clearly needed. Six respondents mentioned that during an emergency, they thought of people dearest to them such as their children, and those who would be empathetic toward their situation. If these people were not available (or if the respondents thought that they were not available), the respondents seemed to rather suffer the pain than to seek out alternative help.

- I was going into the elevator to get back up and tripped over the carpet. There was this time I fell even with the cane. That night it was 8 in the evening, and it was weekend. Nobody was on duty. I had to wait for somebody to pass by and help me up. I could not get up once I fell. Old people you know? There was nothing to hold on to. I couldn’t get up so I sat there. I sat there for around 20 minutes. Someone passed by and I called out to him, and he helped me up. I was bruised in the thigh and the hip area again. – [8]

- I was on the ground, face down. Blood kept streaming from my mouth as apparently, one of my teeth has fallen off due to the impact. My granddaughter (who was 8) came running at me and helped me up… I could walk, so I continued walking to the mall and I bought her (my granddaughter) lunch. I didn’t call my daughter. She is very busy at work. I don’t want her to worry about me. – [10]

Elderly respondents also preferred being seen by family physicians who knew their medical history. There are a few Chinese-speaking family physicians well-known in the homoethic community, and being included on these doctors’ patient lists appeared to give Chinese elders a sense of belonging and pride, as evidenced by their tone whenever they mentioned their doctors’ name during the interview. However, when these professionals were not available at the time of their fall, the respondents failed to consider other options or seek alternative help:

- I used to live in the west end and I saw Dr. XXX – you must know him – for 17 years. I didn’t want to leave him but it’s far away (from here at St. Paul’s L’Amoreaux). Too far away. {pause} He’s very nice. He’s my family doctor. The night I fell, it was on a weekend. Dr. XXX was at a banquet. I had to wait until Monday to book an appointment. – [11]

- My tail bone was in pain. I was in (so much) pain… I couldn’t stand still when I brushed my teeth. After a month, [wow, that’s a long time], yeah, well.... I only see my doctor
for regular check-up and... so, I saw him and told the doctor that my back was in pain after a fall. – [13]

4.2.2 Psychological impacts of the fall

Besides immediate actions, the post-fall psychological responses of Chinese elders who have fallen were also explored. Respondents were asked to share with the interviewer the following:

- How did you react to the fall?
- Tell me how you feel about falling?
- How did the fall affect how you feel about yourself and about life in general?
- Can you compare how you feel about yourself now and before the fall?

Aside from analyzing the answers to these questions, the psychological impact of the fall was observed from the tone and expression of the respondents as they described their experience. Some described it in a story-telling manner with many hand gestures, while others described the events in chronological order without much emotion.

4.2.2.1 Emotional reaction

Falling appeared to be an emotionally-loaded topic. A range of emotions were displayed by respondents during and after the fall: shock, pain, pessimism, depression, and self-blaming. When asked to think back to the time of the fall, and to describe their feelings and reactions, most of the respondents said their minds went “blank”. The fall happened so quickly, it came as a shock for the respondents, who were at a loss as to how to react. Others described the pain they experienced.

- (I felt) Nothing. My mind was blank. – [1]
- You do not know what to feel. It wasn’t even fear. You feel blank for a few seconds. When you fall, you do not know what is going on (or what you are doing). You have to collect yourself for a moment then you realize you have fallen. – [8]
I got up myself. It happened so fast I couldn't react, and fell down... I fell forward, face down. It happened so quickly I couldn't react in time or use my hands to support (my body). – [13]

When I fell, I was in pain. I almost fainted from the pain. – [4]

Falling also seemed to be perceived as a traumatic event, and generated a situation in which fallers began to reflect on and reassess their self-image and identity. Most of the respondents were willing to accept and embrace a change in identity as they age:

At that time (after the fall), I was pessimistic. I got better. I looked at the big picture and learned to accept things as is. I deal with things as they come. If I were to die, I die, what’s the big deal? I’m already at this old age. It doesn’t matter. There is so much you could worry about if you worry. Why worry? Just go with the flow! – [15]

They understood aging as a factor during the rehabilitation process and were patient with their injuries. A female faller who experienced two falls in two years, fracturing her left femur the first time and right femur the second time, said:

Both falls were very similar. Both femurs were fractured the same way. Both times they (the doctors) put in the nails to facilitate the closing of the crack in the bone. When we followed up on the healing a few weeks after the second operation using X-ray.... Ha! We still saw a crack. {truncated} Your body would not adapt as nicely as you grow older you see. – [6]

While some people were ready to accept changes that came with the fall, and responded with age-appropriate behaviours, the evaluation of self-image and identity seemed to have caused others to defend and preserve their previous self-image. Hence, some fallers factually described the fall incident, without adding personal feelings. Others disregarded the fall as a trivial event in life.

Last time, I was walking and I fell and broke my head. I was sent into the hospital and they put nails in my head. “Ding Ding Ding” (imitating sound of hammering nails) to pull my head back together. Then there was this time at the restaurant, I tripped over something and I fell. My head was swollen from the fall and I had to go to the hospital again. My face was bruised (black) as well. – [8]

Because I used to fall often, I didn’t think it was a big deal. – [2]
4.2.2.2 Extent of worries as a result of the fall

Seldom was a respondent afraid of the event of falling itself. Some respondents were quite clear about that:

- Things cannot be avoided. It’s useless to be afraid of falling. – [7]

- I don’t worry about falling. {laugh} I’ll figure out what to do when I fall again. Even when I hurt the teeth last time, I didn’t think too much (about it), it was just painful. This (falling) is something that I don’t worry about. – [10]

- Maybe we are old people. We have seen a lot, and a lot of things aren’t that big of a deal as they seem. {giggled} We don’t worry about falling... she (the daughter) doesn’t worry about me. I don’t worry. – [12]

Rather, the respondents worried about possible impending events such as the deterioration in their physical mobility, as the loss of mobility undoubtedly put the respondents at a disadvantage as they wished to maintain a sense of independence. Other fallers worried about being a care and financial burden for their children, if they became immobilized from a future fall:

- I worry about becoming disabled. What do I do if I am disabled? I worry (that) I wouldn’t be able to do anything. Especially when I was only in my 60s, I was like, ‘Oh no! What do I do if I can’t do anything?’ My hand was so stiff. Eventually it would be so weak and (become) immobile. So I worry. When it got better, well, although it still looked distorted, I could do things again, I could carry things etc., so I am not too worried. – [15]

- Well, I’m worried that I might not be able to walk or to move. It’s so troublesome! Imagine if you couldn’t move, how troublesome! Everything... you need people’s help. I can pour tea for myself (now). I can cook for myself (now). What’s so good if I had to depend on other people? I’m just worried about that. I don’t like it when people serve me. – [8]

Some fallers worried about being isolated and rejected by peers since the potential loss of mobility may lead to their inability to function normally in a social setting.

- I went on a cruise with my best friends to Alaska in 2006. (I’m now a) useless old lady. Cruise? With me? Ha! I can’t walk anywhere quick… and I need to be supported when I walk. My friends wouldn’t walk with me now would they? By the time we get to the dining room, they would be done serving dinner! – [16]
4.2.2.3 Views on life after a fall

Respondents readily shared their views of life. Falling did not seem to have a negative impact on life satisfaction as respondents continued to be “optimistic” and “satisfied” with life:

- (I am) very optimistic. I like going with the flow. Especially after the fall, it taught me to be satisfied with what I have. I have experienced everything. – [14]
- I am quite satisfied with everything. I don’t have to worry. When I came here to St. Paul’s, it’s like a big stone off my shoulders. I know I’m in a safe place. – [2]

Interestingly, the examination of the impacts of falling also stimulated a discussion of death and the respondents expressed a fearless attitude towards dying. They “listen to Heavens” and allow life to take its course. It seemed as though their biggest responsibility was towards their children. Since their children had all grown up, the respondents had no regrets in life. As long as a potential future fall did not result in a loss of independence that might bother their children, the respondents remained satisfied. The concept of not violating children’s space was a prominent subtheme of “Changing attitudes of filial piety” as displayed in Section 4.2.3.2

- Nothing. I’m not even afraid of dying so what else should I fear? I’m no longer responsible for my children. I’m old. What’s there to be afraid of? I’m not afraid even if the sky were to fall. – [5]
- What is my view of life? I don’t have a view. I’m 94. My children are all grown up. Nothing much matters as long as I can eat and sleep. I’m just waiting to be received into the Heavens. – [3]
- I’m like a candle, and the wind can extinguish my flame anytime. I can be going back to the Heavens at anytime. – [14]
- Now whenever I can, I do things on my own. I am grateful that I can still take care of myself in a lot of aspects. I don’t have to bother my daughter. – [6]
4.2.3 Care and informal social support network

In order to explore the types of support Chinese elders receive after the fall, the respondents were asked about their rehabilitation experience with these probes:

- Who provided you with support?
- What kind of support?

Respondents were also asked about their relationship with their family and friends, the degree of social connectedness, and their religious affiliations with these probes:

- **Family**: How many children and grandchildren do you have? How is your relationship with them? What kind of support do you get from them after the fall?

- **Friends**: Where did you meet your friends? How often do you see them? What activities do you do together? Have any of them had experiences of falling?

- **Social connectedness**: What organizations or clubs or programs are you associated with in the community? How did they provide you with support after your fall?

- **Religious affiliations**: Do you have religious beliefs? Do you practise your faith? How does faith influence the way you view your fall?

Most respondents relied on their care and support networks after the fall to a certain extent, and expressed different views about each type of support. These concepts are presented under the theme of “Care and informal social networks”.

4.2.3.1 Formal health services

After a fall, five fallers were hospitalized due to relatively serious injuries such as head trauma and fractures. Two fallers had negative views about mainstream health services. Their frustration seemed to stem from perceived lack of care when they were hospitalized or their lack of confidence in Western medicine:

- You think hospital staff is good? They are not {shakes head}. Those nurses…. Whether you can walk or not… it is the same story. You call them and they won’t show up even
after an hour. You asked them for hot water. They didn’t know if they got it from the tap. A lot of people had the similar experience. Not only me. I was in the hospital for a few days…. 3 days. There were a lot of tests going on. Protocols. – [8]

- This one (wrist) was hurt during my first fall. I didn’t go to the Tieh-ta. I went to the hospital and saw a western doctor. I was in a cast. You can see my bone protruding, see (pointing), protruding, protruding…. {comparing the two wrists and pointing to the ‘good one’} this one (taken care of by the Tieh-ta doctor) was back to original position. {pointing at the other wrist} this one (taken care of by the Western doctor) is a little out of place. It was painful, such a pity! It was so stiff. I tried to bend it and I could not. Very stiff, the wrist is very stiff. It’s distorted. The wrist is distorted. – [15]

The latter faller [15] was so distressed over the fractured wrist that would not heal after being in a cast for so long, resorted to inefficient self-devised solutions in an attempt to fix the wrist:

- I wanted (my wrist) to heal so badly. I twisted, twisted and I twisted (trying to fix it). I was in tears (laugh). I was so scared that my hand would be disabled. I would die (be in deep trouble) if my hand were disabled. – [15]

On the other hand, Chinese elders who have fallen were generally satisfied with the health care service provided by Chinese-speaking professionals. For example, they willingly participated in and were appreciative of physiotherapy sessions with Chinese-speaking physiotherapists during the rehabilitation period:

- Here on Monday, Wednesday and Thursday at 3pm, there is exercise. After exercising, there is physiotherapy at 4pm. Well, they (the PTs) are here starting at 1 but you can drop in whenever until 5pm. So I usually have physiotherapy after exercising. The PTs are from outside of St. Paul’s, but are fluent in Cantonese. – [16]

### 4.2.3.2 Changing attitudes about filial piety

Only one respondent lived with her daughter. The rest lived on their own or with their spouses. Only seven of 18 respondents had at least one grown child living in the same city, who might provide assistance when needed. Chinese elders showed low expectations for filial piety in their comments:

- The younger generation… those who were born here… compared to those in Mainland China, they don’t care much for the elders. It’s all very casual (not enough respect and filial honour). When they come, they would say, “Mama (grandma), let’s go dim sum”. That’s all. It’s ok. The “bananas” (a term to refer to Canadian-born Chinese, with
characters like the Westerners and outer appearance like a Chinese) are like this, everybody said that – [15]

- The children are all grown up and they treat me well. My daughter in the states would visit me every year, she is here for Chinese new year, my birthday etc. It’s good enough. My daughter in Australia has visited me before. I went there several times a few years ago too. We call each other often... mostly they call me. It’s good enough. – [13]

- My daughter lives too far away. She lives in Whitby. Coming to visit me means she would have to drive for hours. She doesn’t go on highways {laughs}, so that’s the problem. (excited) Once she got here, she would have to go back, right? She had to tend to the kids, they were still little at the time. – [9]

More than half of the respondents commented on the importance of being considerate, and the need to give their children space. In their opinion, their children’s “world” or space should not be violated.

- We don’t want our children to worry about us. We seniors here (in the Western society) are very understanding. Children are all grown up and have their own worlds. I try not to have them worry about me. I can take care of myself. – [12]

- People should stop complaining about their kids not visiting them. Old people should “know their role” and act accordingly. The society is constantly changing. They (the kids) have their own jobs, they have their own world. – [14]

As filial piety is not given as much emphasis in the host country, children are not obliged to take care of elders. A respondent summed up why she would rather hire outside help than to ask her daughter to assist with daily activities after a femur fracture, in this comment:

- I hired a part time maid to help with cooking and easy cleaning. I wouldn’t want to bother my daughter. She is retired, but she still has a husband and her own family. Besides, she lives in Mississauga. Driving back and forth... it is not worth the time. Sometimes you need to be understanding of your children’s situation. Who wants to look after an old woman, right? I’m satisfied when they call to ask about my condition. That’s good enough. – [6]

Interview data also showed that filial piety is displayed predominantly through social and financial support. Children might drive the respondents to dim sum or to church services, or to run errands:
If I can’t avoid going out, then I would ask my son to drive me. If I absolutely cannot go out, I would ask my son to do grocery for me. My son sometimes would call and ask me, ‘Do you have food? Do you need me to get grocery for you?’ – [4]

Oh (my children are) very good! They have their own world. So are my grandchildren. They visit me once in a while, we will go out for dim sum. – [2]

I don’t see my son or his family very often. He came visit me this year during Chinese New Year and gave me 200 bucks. – [15]

4.2.3.3 Cessation of non-essential or recreational activities and new friendships

Following their initial fall, it appeared that changes occurred in individuals’ independent living and use of informal support networks. While activities of daily living are continued either independently, or with help from “hourly maids” during the rehabilitation period or for longer, recreational activities usually were a second priority and were soon discontinued. Mah-Jong, one of the most popular tile games among Chinese was mentioned by 12 respondents as a favourite pass time. Other social activities mentioned included Cantonese opera, volunteering within their communities, and dim sum with friends. After a fall, these activities were interrupted for two main reasons: 1) lack of transportation means and 2) lower mobility capabilities. Feelings of loneliness arose as the respondents felt that they were cut off from their friends:

- I used to play Mah-Jong every week with my friends. Now that I have fallen, I am slow. Slow at walking to and getting at the table. Slow in playing my tile when it is my turn. Slow in everything. I cannot help it. They (my friends) don’t want to sit and wait around. It’s supposed to be an exciting game. I can’t go anymore. – [3]

- If I can, I’d still be here volunteering. I stopped volunteering after I had the fall. Then I realized I need help when I was sick. I was the only volunteer when I first came here. There’s a 90-year old man almost wanted me to be his son. {laughs} – [14]

- I am always in my apartment on my own. I do want to see my friends. I had a few friends who used to gather weekly to sing Cantonese opera. {laughs} It is a lot of fun! I don’t have a car. They live in Mississauga. And now, with my leg situation. How am I supposed to go see my friends? You tell me. – [6]
Yes, there was a closer friend, that’s a co-worker from Pfizer. She got to Canada earlier, for more than 10 years. She would chat with me every morning on the phone. (I: Would you meet each other besides talking on the phone?) Pretty rare. Because she doesn’t drive, and I can’t either... I can’t get there. We need someone to give us rides. – [10]

As the respondents apparently were disconnected from their friends who lived far away, they looked for acquaintances who lived close by. Friendship seemed to take on a new definition and whoever was in close proximity was now considered a friend. Support and companionship provided by neighbours was valued since most of the respondents lived in buildings with a large population of Chinese-speaking elders:

- My neighbours are nice. {laughs} After the fall, I’m sometimes dizzy and can’t go downstairs to eat. If my neighbours didn’t see me downstairs, they would come and knock on my door, “Hey, can you go downstairs to eat?” If I said I’m dizzy they would quickly go grab something for me to eat from downstairs. – [5]

- I usually chat with my neighbors. I can talk to anybody if they talk to me. Nothing important, just chatting casually…. If my eyes are good in the morning, then I play mahjong with my neighbors. – [15]

4.2.3.4 The church as a social community

Ten of the respondents had no formal religious affiliations when they first arrived in Toronto. Their spiritual orientation was largely influenced by their children’s choice. At the urging of their children, they converted to Christianity.

- I believed in Buddhism before, (I came) from old school Chinese family. I was baptized when I came to Canada. My children encouraged me. Now, I put all my focus on God. – [14]

- Several of my daughter’s friends are Christians, and they came and talked to me about their faith. My daughter has told them about my situation, and I went to church with them. Around Christmas time in 2007, I got baptized. – [10]

Prayer was one way in which religious and spiritual beliefs were put into practice. In the current study, only two respondents were outspoken about their faith and how it helped them cope with the fall:
• This side was swollen up like a ping pong, and this side was also swollen up like a ping pong. I didn’t know at the time. When I fell, I was in pain. I almost fainted from the pain. I continuously prayed – we believe in God, so we leave everything up to Him. So that night, God made me feel calm and peaceful. I slept until the morning. – [11]

• I prayed! I asked God to reduce the pain, to heal my hip and to give me a good doctor. – [4]

For the rest of the respondents, church-going was treated as a social activity rather than a spiritual experience – a time to network, to spend time with their family and friends, and to kill time.

• There was a worker at the Adult Day Center here (at St. Paul’s), Ms. xxx, she um… well, I went to xxx Baptist Church in the past, and she was there too, and we met. She introduced me to St. Paul’s. – [11]

• My son usually picks me up and we go to church. Then it’s dim sum and grocery shopping. That’s my typical Sunday. – [9]

• My grandchildren are very good to me. I see them every week because we go to church. – [13]

• Every third Sunday of each month, after the service and sermon, they’d have fellowship time. There are many groups, some for young people, all sorts of different groups. And we’d join the one for seniors. During these gatherings, we’d have lunch together, after lunch, we’d gather together to chat and sometimes discuss about the Bible. If it’s somebody’s birthday, we’d have some celebration. After all these, at around 3 or 4, we’d have some snacks, and then we’d go home. – [10]

• So every week I go to church. (It’s) one more place to go to. – [2]

4.2.3.5 Involvement in homoethnic community

More than half of the respondents mentioned a significant involvement with the Chinese community. Sixteen respondents lived in apartment or retirement buildings with large populations of Chinese-speaking elders. They felt comfortable connecting with their neighbours, and participating in programs that were designed with their needs and interests in mind.

• I think our community is very good, with all kind of activities, you see here, we have English class, painting class, everything. St. Paul is very good, the Chinese community
is pretty good. I don’t know about the western community. (small pause) And here we can go grocery shopping too, every once other week. – [12]

- Yes! Yes! There are many activities here, depending if we participate or not. Like there’s Cantonese Opera, or Chinese calligraphy class. – [14]

- There are all kinds of health care programs at the building, such as workshops on diabetes care and osteoporosis awareness. There are fliers on the notice board and you can just register and attend (the classes). – [7]

Respondents were also appreciative of the efforts that building staff put into providing a safe and secure living environment for seniors.

- Those shuttles drive you to Market Village (4 blocks north). Those services are available once a week, 4 bucks for a return trip. They drop you off downstairs. Those are pretty nice services for the seniors. If I bought something heavy, like a bag of rice, they would carry it for you. – [15]

- Some older people fell…. so now we are required to put a tag out on the door by 930pm and remove it by 11am, so that they know there’s someone there. If the tag is still there, then the volunteer know something may have happened and would go into your apartment to see what’s wrong. So it’s very good…. the security is good. – [12]

- Here it is very convenient. You see (pointing to personal emergency alarm button), they told us to wear this button. If anything happened, just press this and nurse and security people would come from downstairs immediately. They speak Chinese. They would assess the situation and see if you need to be transported to the hospital. They would arrange. – [5]

Media was an important way to help these Chinese elders remain connected with society. In the Greater Toronto Area, Chinese programming on television and radio was available and enjoyed by the respondents. They learned about health services and other resources from infomercials on Chinese channels. For elders with little entertainment, Chinese soap operas were appreciated:

- I must watch the news! I watch the news everyday on Fairchild (major media group responsible for Chinese programming in major Canadian cities). Then I watch those Chinese soap operas. – [1]

- I saw that commercial on TV the other day about Carefirst (non-profit charitable community services agency in Toronto). They have a comprehensive clinic (Carefirst
Family health Team) in Richmond Hill now. For us old folks… they speak Chinese! – [16]

4.2.4 Learning from the fall experience

To assist the Chinese elders who have fallen in completing their evaluation of their fall experience, the following set of questions was asked to explore possible changes that happened in their lives after the fall, and to assess their readiness for a potential future fall:

- What changes, if any, occur in your life after the fall?
- How confident do you feel about walking indoors and outdoors, and carrying out activities of daily living?
- How likely do you think it is for you to fall again?
- What do you think may keep you from falling again?
- If you fall again, what would you do?

4.2.4.1 Perceived causes of the fall

All respondents reported some form of risk reappraisal after the fall. As fallers reflected on the fall incident, they sometimes blamed themselves for their falls. Carelessness, distraction due to depression and impatience were the common responses. Others blamed falls exclusively on extrinsic factors such as environmental problems.

- If you are in a bad mood, that means you are constantly thinking about something. Then you are not thinking about your safety right? You think about it, “yes, that time I was like this like that” then you are careless. So yes, bad mood plays a role. Bad mood affects a lot of things. – [14]

- I think this has to do with my depression. Distracted... sometimes all of a sudden I’d feel very sad. What makes me sad is when I think about things that happened in the past, when I think about things that I did with my husband, things that happened. For more than forty years, that’s how long that I feel sad for. There are many things that I’d think about. Thinking about things from the past makes me sad. So these days, because of the low energy level, there aren’t many places that I can go. – [10]

- Woah! It’s hard to tell when and how one falls. You fall when you are careless! – [4]
• Falling is not because of ill health... Falling is because of winter, the snow and such. So you should avoid. If I could avoid, I avoid. If there is snow..... the environment..... (thinking), if you are not alert, you are bound to fall. We, old people, it is hard for us to adapt to winter. The snowy roads in the winter, it’s very difficult to adapt to. – [15]

For some fallers, falls are perceived as a consequence of ageing and part of the course of life. Physical weaknesses associated with aging such as weakness in the knees, and coordination problems were cited as reasons for the fall.

• In the past, I thought I am super and (for example) when I went to get something I would walk fast. I do not dare (walk fast) now. Slowly, slowly. Much more carefully, because I am scared of falling and hurting my arms and legs. In the past, when I was 85, I was still shovelling the snow! That shovelling person would not come, so I would do it all myself. 85, 86, 87.... I started deteriorating. I was super when I was 85. – [8]

• Well, it’s all about the loss of senses (disconnection in motor control and movement). For example, if I turn my body, I’ll fall. When I walk... I don’t know. – [3]

• I’m not sure, but maybe it’s due to lack of balance. – [7]

• Some people fall at home. I think, I don’t know about other people, but for myself, my knees are weak. When I stand up from sitting down (for a while), I feel like I don’t have enough strength. – [11]

4.2.4.2 Changes made to prevent future falls

The respondents made adaptational changes to prevent future falls. Changes were targeted at altering extrinsic (i.e. problems such as hazardous environmental conditions or faulty devices) or intrinsic (i.e. physiologic changes or pathological conditions) risk factors.

Environmental changes or home modifications supported opportunities to move around in and manipulate their environment in the event of a repeat fall. Reported environment changes included, using canes or walking aids, removing carpets from the floor, and using a non-slip mat in the showers.

• Due to lack of strength, I have to rely on this thing (point to the cane). At night, I would put this thing beside my bed. And when I get up in the morning, I have to use it. It’s better to be careful. – [1]
• The management office has finally clued in and took away the two carpets and put one big one in so people won’t trip over the corner of the carpet. They have changed it all since I fell twice there. – [8]

• For showers, they [who are they], my children… they told me to put a non-slip mat in the shower tub, so I put a non-slip mat. – [13]

Intuitive changes included modifications made to personal behaviours. Avoidance behaviour was reported as an intuitive change. Specifically, fallers would avoid outdoor activities. Other intuitive changes include being more careful (“taking care”) when walking and slowing down:

• There aren’t any other methods. The only way is to avoid. Like now, when it is snowing, I would go on the streets less, so that I don’t have to walk in the snow. I can only avoid. – [15]

• Now the physiotherapist taught me to walk step by step (and bigger strides). [truncated] My left leg is not very flexible. It can’t move very freely. You have to push it to move. That’s it. That’s why I fall easily. – [8]

• I’m always thinking about not to fall. Walking carefully, don’t bump into things and fall. – [5]

• I walk very slowly. I watch if there would be barriers that I could trip over then I walk. If family members are holding onto me, then I feel secured and I walk without a care. With a cane, I walk very, very slowly. – [9]

4.2.4.3 Contingency plans when fall happens again

As much as the respondents would have liked to prevent falling by modifying the risk factors that they were aware of, all of them concluded that falls are unpredictable.

• It’s hard to tell. It’s accident so it’s hard to predict. If I can predict it then I wouldn’t have fallen. – [14]

As a result, most of them put minimal thought into what to do in case of another fall. The question “If you fall again, what would you do?” was met with blank stares and hesitations. Some respondents answered as if they did not expect another fall to happen to them, while others would turn to trusted sources such as their children in case of emergency:
• Um... I don’t know what to do... I have no plans at the moment... Well, I have a cell phone, I guess I can call whoever is available... Actually, I probably won’t call my sons or daughters for help because I can’t remember their phone numbers {laugh} ..... – [2]

• Well, at St. Paul’s, they gave us a tag to bring when going outside. I have this emergency alarm button to wear at home. Usually the security will come within 1 minute (if I pressed this button). – [3]

• My daughter once told me, “Mommy, just scream in case of emergency!” {laugh}. Yeah, so, I would scream if I could not get up from the fall. Even though I speak Chinese I’d still scream. Yelling out, “Help! Help!” Even if nobody’s around and nobody’s walking by I would keep screaming. – [13]

• I wouldn’t know what to do (if I fall again). If I can crawl, I’d crawl to call my daughter – [10]

4.3 Themes Relevant in Service Utilization

One of the assumptions of the study, as stated in Chapter 2, was that Chinese elders will attempt to access some form of health services following the fall. Study results showed that the different types of services that older Chinese immigrants use after a fall may be largely grouped into two categories: formal health services, and informal care/social services. Formal health services that older participants reported using include emergency room visits, Chinese-speaking family physicians and traditional Chinese healers such Tieh-ta master. Informal care and social services reported include friendly visits, transportation, meal preparation, shopping or minor chores performed by family and friends, and church programs.

Certain themes identified in the current study may be related to health and social service use. According to Andersen’s Behavioural Model, Chinese elders’ use of these services is a function of predisposing, enabling/impeding and need factors. Specifically, the findings suggest that these factors are all impacted by cultural and immigrant-status factors. The critique of Andersen’s Behavioural Model of Health Service Utilization, and a discussion of how these emergent themes contributed to its further specification will be discussed in Chapter 5.
4.3.1 Predisposing, Enabling and Need Factors

Predisposing factors: There are three themes that may contribute to the forces which predispose Chinese elders who have fallen to employ certain help-seeking behaviours: 1) cultural values concerning health and illness, 2) knowledge about fall injuries, and 3) attitudes toward health services. An in-depth discussion of these themes will be discussed in Chapter 5.

Enabling factors: Sixteen out of 18 respondents from this study lived in dense, geographically clustered Chinese neighbourhoods. There are numerous local, Chinese-speaking providers including family physicians. The availability of highly accessible linguistically compatible services acts as an enabling factor for formal health service use. Indeed, many respondents reported that their physician was involved in the help-seeking pathway, either immediately or shortly after the fall. Another service that is available, accessible and utilized by Chinese elders who have fallen is the personal emergency alarm system installed in their buildings. Lastly, family, friends, neighbours, church and Chinese communities provide informal care support such as transportation, financial support and other tangible and practical resources, which act as an enabling factor for both formal and informal care use.

Need factors: In the case of a fall, the need to access formal and informal health and care support is a subjective matter. In falling, perceived need is affected by predisposing factors such as health beliefs and enabling factors such as physician referral. Implied in the data is the concept of unmet needs. The frustration reported by some respondents over the lack of primary care service that is sensitive to their cultural needs, is an example of unmet needs. The issue of unmet need is also prominent pre- and post-fall when informal care and social services are important. For example, none of the respondents mentioned participation in a fall prevention program.
4.4 Summary of Results

In this chapter, categories and themes that emerged from the interview data were presented. Chinese elders were invited to examine their fall experience retrospectively and reflect extensively on their thoughts and actions throughout the entire process, from the moment they fell, to making appropriate plans for the future. Unique aspects of decision-making during and after the fall, the emotional impact of falling on Chinese elders, and a complex care and support network after the falls, were revealed upon data analysis.

Immediately after a fall, Chinese elders were found to seek help from traditional Chinese remedies and trusted sources from homoethnic community. Psychologically, falling stirred many emotions such as shock, pessimism, depression, and self-blame. Falling also stimulated a reassessment of self-image in Chinese elders, and they were found to be willing to accept and embrace a change in identity as they age. Chinese elders who have fallen were not afraid of falling per se, but their own fall experience caused them to worry about certain aspects in life. In general, falling did not seem to have a great impact on life satisfaction in Chinese elders.

Chinese elders who have fallen depended on a complex care network comprised of their family, friends, and members from the Chinese community during the period of recovery from the fall. One prominent category that arose was the strong role that religion plays in Chinese elders’ social life. Another dominant category is the changing attitude towards filial piety. Chinese elders in Toronto had little expectation of filial piety and did not require children to provide direct care after a fall. Lastly, the Chinese media provided valuable information and helped Chinese elders to connect with the Chinese community.

Careful examination of their fall experience allowed Chinese elders to understand the possible causes for the falls, and make adaptational changes accordingly. However, no matter how proactive they might be in falls prevention, Chinese elders who have fallen concluded that
future falls were unpredictable. They generally did not have any contingency plans in place for recurring falls.

Lastly, findings of the study also indicate unique patterns and factors in the utilization of health and social programs. This result may be useful in the further specification of the Andersen’s Behavioural Model for Health Service Utilization, as will be further discussed in Chapter 5.
In this dissertation, personal accounts obtained from 18 Chinese elders who have fallen living in the community in the Greater Toronto Area, and the careful analysis of those accounts revealed some interesting findings in relation to falls. The four key themes identified in the present study demonstrate how Chinese immigrants view and manage their fall experience. In brief, these Chinese elders responded to their fall using approaches influenced by cultural norms and their immigrant status, by facing a range of worries and adopting a unique view of life after the fall, by accessing their complex support network made up of family, friends, and homoethnic community, and by reflecting on and learning from the fall.

The analysis of the narratives showed that respondents were operating under the assumption of what could be called a “blended” explanatory model of illness. In relation to serious fall injuries, respondents appeared to adhere to a Western medical model, while in relation to the ongoing maintenance of health, and to the treatment of chronic conditions, respondents adhered to a more traditional Chinese explanatory model as they resorted to traditional Chinese remedies. Such findings are not surprising, given that blended explanatory models of illness are prevalent both in Mainland China and in Hong Kong (Unschuld, 1985). Also, the roots of Chinese culture in the blended traditions and philosophies of Confucianism, Taoism, and Buddhism appear to be the foundation for many of the beliefs and attitudes expressed in this study, which in turn influence how Chinese elders experience falling.

The wide range of psychosocial responses also illustrated the complexity of the Andersen’s Behavioural model for health services use and its potential to explain the different types of services an older Chinese immigrant may need post-fall. The interplay between the predisposing, enabling and need factors, and dynamic relationships between the different elements under them, all have their cultural and immigrant-status underpinnings.
This chapter begins by addressing the emotional impact of the fall experience. The rest of the chapter is dedicated to 1) looking closely at fallers’ social and behavioural reactions, and 2) using the Andersen’s Behavioural model as a framework, to explore the ties between these reactions and the utilization of formal/informal care and social service among older Chinese immigrant fallers. Study findings are applied to this prevailing conceptual model of health services use, in order to enhance its explanatory power in the population of older Chinese immigrants who have fallen. Outcome of this study also challenged existing services and programs available to Chinese elders who have fallen. This chapter, therefore, discusses how research results may inform the design of novel programs, such as the development of a culturally-sensitive fall prevention program for older Chinese immigrants.

5.1 Psychological Responses to falling

There exists a wealth of literature on the physical consequences and biomedical risk factors of falling. Yet, the research questions of this study took the researcher beyond the physical realm of falling into a deeper, more fascinating world: the psychology of the fallers. “Psychological responses to falling” arose as one of the four prominent themes from the data, as the personal accounts of the fallers allowed the researcher to get a glimpse into the minds of Chinese elders who have fallen – their emotions, their worries, and their thoughts – at a single point in time. The psychological impact of a fall is so powerful that, when they recalled their fall experiences, some fallers cried, some laughed, and some were stone-faced. These psychological responses prompted the researcher to reflect on their meaning and other important implications, in the context of Chinese culture and its influence.

5.1.1 Emotional reactions

A wide range of emotions during and after the fall were described by respondents: shock, pessimism, depression, and self-blame. The fall happened so quickly that it came as a
shock to our respondents, who were at a loss as to how to react. As a result, some respondents reported feeling “blank”. This initial shock or disbelief may stem from a forced acknowledgement that aging has become an unavoidable reality. The fall draws our informants’ attention to their old age, making them realize that youth has indeed left them and that they have been assigned a new role and identity – that of an “older adult”. For example, having grown up, lived and worked in Hong Kong where efficiency is valued, respondents commented on having developed certain personality traits such as impatience and the habit of rushing and hurrying. These have become yet another hurdle to overcome as older Chinese immigrants are faced with this change in self-perception and a break in the continuity of their personal identity after the fall.

Aging may be a difficult process, and aging in a foreign country puts Chinese immigrants in double jeopardy. Different psychosocial challenges underscore the difficulties faced by an aging person: letting go of the children, managing life after retirement, embracing grandparenthood and loss of siblings and peers through death, and the anticipation of death (Akhtar & Choi, 2004). These difficulties become even more challenging for an aging immigrant, rendering them more vulnerable to the effects of declining efficacy. Add to this the consequences of a fall, and the extra stress may overwhelm many respondents. Indeed, the physical and functional changes that resulted from the fall induced a sense of pessimism in some Chinese elders. Some respondents even reported episodes of depression over stubborn injuries that would not heal. However, some respondents were quick in accepting and embracing a change in identity as they aged. They understood aging as a factor during the rehabilitation process and were patient with their healing process.

Besides analyzing verbal descriptions from the transcripts, the psychological impact of falling was observed from the tone and expression of the respondents as they described their
experiences. Some described it in a story-telling manner with many hand gestures, while others described the events in chronological order without adding personal feelings, and disregarded the fall as a trivial event in life. The latter finding is consistent with previous studies which reported that fallers are sometimes motivated to underplay their personal susceptibility when asked about their fall experience (Ballinger and Payne, 2000; Kong et al. 2002; Horton 2006). Ballinger and Payne (2000) suggested that this may be due to stigma associated with falling. The language used to describe falls by older people avoids connotations of personal vulnerability. Some fallers emphasized their commendable personal attributes, such as being competent and able to manage and care for themselves, and perceived their falls to be related to bad luck, or to the incompetence of others (Ballinger and Payne 2000). This lack of emotion or attempt at denial may be a type of defensive mechanism of displaced blame (Kong et al. 2002).

### 5.1.2 Extent of worries

Seldom were the descriptors “fear”, “scared”, “afraid of” used when Chinese elders described their feelings and reactions towards falling. Instead, respondents had a preference for the word “worry”, and they worried about the different consequences of falling such as the deterioration in their physical mobility, since the loss of mobility undoubtedly put our respondents at a disadvantage as they wished to maintain a sense of independence. Other fallers may worry about being a care and financial burden for their children, if they become immobilized from a future fall. Socially, older Chinese immigrants who have fallen may worry about being isolated and rejected by peers, along with impending inability to function normally at social activities.

As older Chinese immigrants who have fallen move through the recovery stage, they may develop certain worries. When health events such as a fall occur, Chinese are socialized to concentrate on the consequences of interpersonal relationships and social obligations rather than
on personal feelings (Shih, 1996). For example, Kong et al. (2002) showed that Chinese elders, especially women, typically take on the role of caretakers or babysitters for their grandchildren, while their adult children work to feed the family. Thus, they may worry about being a burden to families as they may not be able to fulfil their usual role expectations at home (Kong et al., 2002). Furthermore, in Chinese culture, “the individual is considered an integral part of the family, and the family, in turn is seen as an entity that exists before one was born, and shall continue to exist after one has died” (Bowman & Singer, 2001). Thus, the same way a family shares in the glory of an individual’s accomplishments, it bears his/her shame and misfortune. The fall may be viewed as a shameful event on the family and thus older Chinese immigrants who have fallen may feel a sense of guilt that they have inadvertently involved their children.

Although Chinese elders in the current study did not necessarily display fear, they used similar strategies as those fallers who are managing the fear of falling. Huang (2005) and Roe (2008) concluded that fallers may either deal with or suffer with fear of falling. People who acknowledge and face their fear of falling use positive and proactive strategies (e.g. diligently following a physical therapy regimen) to manage and prevent future falls, and these strategies are socially supported (Huang, 2005). People who suffer with falling tend to display avoidance of behaviour, for example, avoiding outdoor activities (Huang, 2005; Kong et al., 2002; Roe et al., 2008). Despite having different worries, most participants in the current study took on a positive attitude post-fall, as illustrated in the following theme.

5.1.3 Views of life after the fall

Some respondents readily shared their view of life. Falling did not seem to have a negative impact on life satisfaction as respondents continued to be “optimistic” and “satisfied” with life. They were at peace with their present lives. The examination of the impact of falling also revealed a fearless attitude towards dying in Chinese elders. It appeared their biggest
responsibility was towards their children; and since their children were all grown up, these respondents no longer had regrets in life. They “Listened to Heavens” and allowed life to take its course.

As the respondents continued to share thoughts about the psychological impact of falling, they expressed optimism and satisfaction over their life after the fall, as well as a fearlessness attitude towards death. The influences of Buddhism and Taoism have a bearing on these views on life. Buddhism teaches that the cycle of life begins with birth, followed by aging, illness, and death. These are all integral aspects of life and are inevitable (Kemp, 2004). Taoism emphasizes passivity, acceptance of a natural order, and allowing things to be (Kemp, 2004). In the current study, the fall and its consequences, when combined with aging, were viewed by some respondents to represent an inevitable step in the fulfillment of “nature’s way” or the completion of the cycle of life. These influences were evident in the many references to the acceptance of the life cycle, and to the importance of ‘listening to Heavens’ and allowing life to take its course. Also, in Chinese culture, when a person has thoroughly contributed to society by fulfilling his obligations such as work and family, or when his children are married and self-sufficient (Lee, 1991), he or she is entitled to a “good death”. Against this rich cultural and philosophical tapestry, Chinese elders are at peace with their current state of life.

5.1.4 Implications

The finding that Chinese elders do not wish to burden their children with the consequences of falling implied that they did not show a need to discuss their emotions or concerns with relatives. This suppression of personal feelings by Chinese patients may be a defence mechanism; to save face and to promote personal harmony in a stressful environment (Kong et al., 2002). However, it was noted that elders with an appropriate support system for discussing their psychological distress were less likely to restrict their activity level (Huang,
Krause and Liang (Krause & Liang, 1993) noted that about 80% of older Chinese would talk about their concerns with their relatives when dealing with stress, and these individuals remained functionally and socially active longer. Data from the current study revealed a wide range of emotions and extent of worries in Chinese elders after their falls. Although these did not lead to profound impacts on the Chinese elders’ psychological well-being, the development of negative feelings like poor self-worth or pessimism should not be overlooked. Relatives and children should be encouraged to seek to explore elders’ feelings and discuss the fall in depth, in order to monitor Chinese elders’ psychological well-being.

5.2 Social and behavioural responses to falling

Having analysed the psychological aspects of falling, the next sections focus on the action-oriented behavioural and social responses of older Chinese immigrants who have fallen. When an older Chinese immigrant falls, a cascade of events may follow. The immediate and continuous management of fall consequences reflects a wide range of behavioural and social responses, which have been organized into these themes as reported in the Results section: “Help-seeking decisions immediately after the fall”, “Involvement in an informal social support network”, and “Learning from the fall experience”. These intriguing themes emerged as traditional Chinese philosophies and cultural norms, westernized thinking, and immigrant-status related factors combined and intermingled to shape Chinese immigrants’ behavioural responses. Each of these themes will be discussed in the context of the forces that shape Chinese immigrants’ behavioural responses, and their relation to previous research. Certain elements of these themes provide specification to the Andersen’s behavioural model for health care use, and will be discussed in a later section.
5.2.1 Help-seeking decisions immediately after the fall

This particular theme is packed with decision-making dilemmas. A faller is confronted with questions such as, “How to get up from a fall?”, “Should I get help, and if so, who and where?”. The different categories under this theme represent Chinese elders’ behavioural responses to the above questions. Most of these immediate responses are influenced by the fallers’ health beliefs, which are in turn shaped by Chinese norms and values, and may directly or indirectly connect the Chinese elders to formal health services such as primary emergency room care or diagnosis, treatment and referral by family physicians. “Health belief” is a major predisposing factor in the Andersen’s behavioural model for health service use, and will be discussed in a later section concerning the model. Another finding highlighted within this theme – that a personal emergency alarm system was heavily relied on by older Chinese immigrants who have fallen – will be discussed here.

5.2.1.1 Use of personal emergency alarm system

The ability to get up after a fall is essential to survival. In a one-year prospective study which followed 265 older adults over a one year period, 54% of the elders were found to need help in getting up after a fall, and 30% lay on the floor for an hour or more (Fleming, Brayne, & and the Cambridge City over-75s Cohort (CC75C) study collaboration, 2008). Lying on the floor for longer than 12 hours can result in pressure ulcers, hypothermia, dehydration, pneumonia and death (Tinetti, Mendes de Leon, Doucette, & Baker, 1994). Even non-injurious falls in an older person unable to get up can result in death (Skelton & Todd, 2005). Lying on the floor for a long time was also strongly associated with cognitive impairment, advancing age and concurrent health problems, and subsequent admissions to hospital or moves into long term care (Fleming et al., 2008). Our study sample may reflect a functionally and cognitively able cohort, and thus, only one faller had to wait for help lying on the floor when she fell outdoors in
an isolated area. The rest relied on family members, carers, and the public or emergency alarm system to get up.

Assistive technological devices, such as the personal emergency alarm system, are increasingly available to older people in North America. The personal emergency alarm system was designed to “make life easier by making it possible… for some older persons to age in place by remaining in their homes as they grow older” (Robinson, 1991). The use of such systems by older Chinese immigrants who have fallen in the current study reflects this principle. The majority of the respondents lived in retirement buildings which are densely populated by older Chinese immigrants and equipped with emergency medical alarm systems. This allowed them to be connected with a Chinese-speaking “response care associate” manning the apartment building, who would promptly arrange for assistance to ensure the residents receive proper care following an emergency situation such as a fall. This system serves as an enabling factor as it connects older Chinese immigrants who have fallen to formal health services. On the other hand, a lack of confidence in the mainstream emergency number 911 reflects a gap in communication in terms of language and cultural needs.

The success of the emergency alarm system among Chinese elders may be attributed to the fact that the system provides them with the security of trustworthy help – that the person who instigates help on their behalf will be someone who speaks their language and is empathetic to their needs. During an emergency situation such as a fall, the ability to hear a familiar voice and to be comforted and reassured that help is on the way is important to elders on a psychological level. Chinese elders’ reliance on the alarm system thus reflects the excellent execution of the system in the retirement buildings they live in, the outstanding effort building staff put into promoting the system and educating older Chinese immigrants, as well as the rapport and trust established between Chinese elders and the building staff. By improving
Chinese elders’ confidence, the use of the alarm system can enrich an individual’s quality of life, and can be seen as a positive contribution to the rehabilitation of those who were recovering from the experience of falls.

In contrast to findings of the current study, the literature reported poor access and low adherence to using personal body-worn alarms. Roe and colleagues (2008) found that only a small minority of elders in their study sample had access to personal body-worn alarms to call for help, and even a smaller minority wore them or had used them. It was found that elders who fell repeatedly rarely activated the alarm system. Even elders who had used the alarm system before to obtain help were hesitant about its use in the future (Porter, 2005). In Fleming’s (2008) study of the oldest old population in Cambridge, nearly all (97%) of those who lay on the floor for a long time and had a call alarm system did not activate it. It was speculated that low utilization rates of the alarm system could be due to the elder population’s ‘resistance’ to their changing identity and dependence on others. Supportive and educative interventions designed to enhance elders’ sense of mastery and decision-making ability might be more effective than interventions that focussed solely on increasing compliance (Porter, 2005).

A qualitative study was performed to further explore fallers’ attitudes to assistive devices such as the alarm system (Horton, 2008). Comments from study participants and their relatives shed light on barriers to using these systems. Key findings included: 1) reluctance to be labelled as at high risk for falling, 2) attempt to preserve independence, both in immediate terms (e.g. wanting to get up unassisted), and in terms of the longer view (e.g. wanting to avoid admission to nursing homes), 3) technical difficulties in accessing and activating the devices.

These findings, together with data from the current study, suggest practical implications. First, information and continuous training should be provided to Chinese elders to promote and encourage the proper use of the alarm system. For example, elders should be taught the steps in
activating the system and be aware of their signal range. Secondly, ongoing evaluation of the alarm system in different ethno-cultural populations should be carried out, so that 1) the design of the call systems may be improved, and 2) care providers may better understand how to effectively deliver support services that are acceptable to the older people concerned. Thirdly, the feasibility and efficacy of other extended alarm services such as fall detectors, bed occupancy sensors and telemonitoring devices should be explored to provide fallers with more options. Future research should therefore examine the receptivity of house-dwelling Chinese elders to these alarms, and how the alarms might be effectively adapted in such an environment.

5.2.2 Informal social support network

While immediate help usually refers to formal health care given to the fallers, such as primary care at the hospital ER or diagnosis and referral by family physicians, informal care and social networks provide fallers with long term care and support that follows the fall. (Wenger, 1991) developed a typology for informal support networks which included family dependent, local integrated support (kin and non-kin support) and local self-contained (non-kin support only). This typology may be applied to the complex care and social network older Chinese immigrants are involved in after a fall. Family, friends, neighbours, the church and the homoethnic community all play a role in providing assistance with daily living during fallers’ rehabilitation process, giving them financial and social support and keeping them connected with resources. Each of these five contributors will be discussed below, with special focus put on the family, filial piety and the church community. Data from the current study revealed that older Chinese immigrants hold changing attitudes toward filial piety. As well, the Christian church was found to serve a social function for Chinese elders after the fall. These findings are unique to the current study.
5.2.2.1 Changing attitudes about filial piety

One of the most exciting aspects of this study is that it witnessed Chinese elders’ adaptation to a transformed expression of filial piety. Contrary to traditional cultural values, older Chinese immigrants showed low expectations for filial piety. More than half of our respondents commented on the importance of being considerate, and the need to give their children space. As filial piety is not given as much emphasis in the host country (Chen, 1997), children are not obliged to take care of elders.

The notion of filial piety is rooted in Confucianism. Filial piety promotes the values of reciprocity, filial obligations, a sense of respect, and responsibility for providing care to older family members. The historic concept of filial piety states that children, notably sons, are obligated to provide for elderly parents (Chappell & Kusch, 2007) in order to reciprocate the care, love and obedience that was given to them by the parents (Hsu 1971, Ng et al. 2002). Care-giving is therefore seen as a natural extension of commitment to parents (Han, Choi, Kim, Lee, & Kim, 2008). This explains findings from prior research on mainland Chinese (Lee et al. 2000), which revealed that older Chinese tend to live with their children, so that children may easily fulfill their duties of filial piety.

Under the influence of Western culture, however, there exists a gap in what older Chinese immigrants and their children perceive as filial piety. The interaction of filial piety, filial autonomy, and conflicts between them is noticeable in respondents in the current study. The interview data also showed that filial piety is displayed predominantly through social and financial support after a fall. This finding echoes Chen’s (1997) comments on the practice of filial piety among Chinese living abroad. He suggests that North American Chinese are immersed in an environment that consists of democracy, capitalism and individualism. Experiences within this climate have fundamentally reshaped Chinese culture, hybridizing
Chinese and Western cultures, creating new transnational identities in a blending of the two (Chen, 1997). Subsequently, the focus of filial piety has shifted and now lies on supporting aged parents, rather than obedience and producing descendants. Rather than an expression of the child’s obligation to serve the parents, it has become an expression of the child’s gratitude to his parents (Chappell & Kusch, 2007).

In the current study, only two respondents lived with their children. The rest lived alone or only with their spouse. This finding of predominantly independent living arrangements in this small sample contradicts data on Chinese elders living in China, and a national survey on Chinese elders in Canada, which concluded that most Chinese elders live either only with children or with both children and spouse (Chappell & Kusch, 2007). Chappell and Kusch (2007) asserted that, within the scope of Chinese traditions, Chinese immigrants still prefer and are expected to live with their children. However, the data in this study revealed other feelings and reflected the desire of these older Chinese immigrants to be independent. The unique finding may be explained by the differences in objective circumstance and subjective life experience in ethnic sub-groups (Chappell & Kusch, 2007). It may also be due to a sampling issue, and will be further discussed in Section 5.6.

Related to the finding about independent living arrangement is the respondents’ reduced readiness to seek care from their children. Since most respondents did not live with their children, they considered seeking helping from children as causing them inconvenience. In the literature, care-giving provided as a consequence of a sense of duty often has been shown to result in negative experiences and adverse consequences for the well-being of the caregiver (Lane et al., 2003). Our respondents seem to understand this intuitively, and thus chose not to bother their children with their own difficulties in dealing with the fall. They would rather purchase care (such as around-the-clock personal care to assist with ADL and IADL), and in so
doing, relieve their children of this duty. Independence may also relieve the respondents of the burden associated with receiving care from the children as previously discussed.

These data suggest that care-giving for Chinese elderly in Canada reflect the changing culture in Chinese communities at the present time as well as a blending of traditional Chinese patterns with Western behaviours. To further extrapolate, the findings of independent living arrangements and lower expectations for care-giving may lend strength to the speculation that we may be witnessing the beginning of a trend in which older Chinese immigrants, especially widowed women, break away from the principles of filial piety and family values to fulfill their desire for autonomy and their wish to not “violate children’s space”. This is similar to the Western idea of “intimacy-at-a-distance”, where support is provided but with separate living arrangements (Chappell & Kusch, 2007). Confirming and understanding the implications of this cultural shift may be the subject matter for future longitudinal research.

As children are not obligated to provide care-giving, they practise filial piety in the form of irregular visits and gatherings. These are seen as purely social events. These visits, along with newly formed friendship with neighbours, make up an informal social support network that keeps Chinese elders who have fallen connected and motivated. The care and services provided by children, friends and neighbours may be occasional and include less demanding activities such as friendly visiting, transportation, meal preparation, shopping or minor chores (Jellinek, 2001). More importantly, these services are of a voluntary nature as opposed to the obligatory nature of filial piety, and therefore better received by Chinese elders.

5.2.2.2 New friendships

Following the initial fall, activities of daily living continued either independently, or with hired help. However, recreational activities usually took second priority and were soon discontinued for two main reasons: 1) lack of transportation means and 2) lower mobility
capabilities. Feelings of loneliness arose as our respondents felt cut off from their friends. As such, some respondents looked for acquaintances living close by. Friendship took on a somewhat new definition, that is, whoever is in close proximity is now considered a friend. Support and companionship provided by neighbours were highly valued since most of our respondents lived in buildings with a large population of Chinese-speaking elders. Neighbours provided tangible and practical help (e.g. help with meals preparation, social support, and entertainment such as Mah-Jong).

Although family members contribute more than friends to the physical well-being of older people – they are more active in health care, financial support, and emergency assistance – interaction with family members appears to be less consistently related to well being. Indeed, the exchange of aid with family members appears to be unrelated to morale for older adults (Mutran & Reitzes, 1981). Numerous authors have portrayed closeness, intimacy, or support as the central and essential feature of friendship (Lowenthal & Robinson, 1976). As demonstrated by the current study, relationships provided by friends and neighbours with minimal level of conflict resulted in positive emotions, and improved perceived health status.

5.2.2.3 The church as a social community

The church community adds an interesting dimension to Chinese elders’ informal social support. This phenomenon is unique to Asian immigrants in North America (Won Moo & Kim, 1990)

At the urging of their children, Chinese elders who had no previous religious affiliation converted to Christianity upon arrival to Canada, and relied on ethnic churches as a support system both before and after the fall. Church-going is treated more as a social activity than a spiritual experience – a time to network, to spend time with their family and friends.
Previous studies have tried to investigate the observation/phenomenon that Chinese immigrants have an unusually high degree of church participation in their host countries (Won Moo & Kim, 1990). Protestantism, has surpassed traditional forms of religion like Buddhism and Taoism by a wide margin, to become the most practised institutional religion in the United States, and has been exhibiting a steady pattern of growth. It has been suggested that Chinese immigrants become more religious because of a strong desire for the existential meaning of uprooting from their home country and re-establishment in the host country (Won Moo & Kim, 1990). Non-religious benefits offered to churchgoers, both material and psychological, might also explain the widespread interest Chinese immigrants have shown in Protestantism. These benefits include using ethnic Christian churches as a social center and a means of cultural identification, as well as an educational resource in learning the North American way of life (Won Moo & Kim, 1990). When compared with other Chinese ethnic organizations, the ethnic Christian churches also provide Chinese immigrants with frequent and regular opportunities for group interactions, thereby satisfying their heightened need for a communal bond, or social belonging and psychological comfort in a strange land (Won Moo & Kim, 1990). In times when individual members encounter psychological distress or experience other personal crisis in life, such as a fall, ethnic Christian churches give emotional support and a helping hand (Min, 1992).

5.2.2.4 Involvement in homoethnic communities

More than half of our respondents mentioned a significant involvement with the Chinese community before and after the fall. Sixteen respondents lived in apartment or retirement buildings with large populations of Chinese-speaking elders. They felt comfortable connecting with their neighbours, and participating in programs that were designed with their needs and interests in mind. Respondents were also appreciative of the efforts that building staff put into providing a safe and secure living environment for seniors.
The homoethnic community functions in similar ways as the ethnic church. It serves as a starting point for assimilation, and “a broker between its members and the bureaucratic institutions of the mainstream society” (Kim, 1981). By getting involved in the homoethnic community, Chinese elders enjoy a wider social network, better educational resources, and greater trust and support from people with the same beliefs, experience and culture.

One interesting aspect of the homoethnic community that was found to enhance Chinese elders’ quality of life is the Chinese media in the local community. The media is important in connecting Chinese elders with the greater society. In the Greater Toronto Area, Chinese programming on television and radio are available and enjoyed by the respondents. They learn about health services and other resources from infomercials on Chinese channels. This finding echoed those from an exploratory study which concluded that the information needs of elderly Chinese immigrants were diverse, including health issues, hobbies or interests, or cultural activities. Older Chinese immigrants access information most commonly through newspapers and television (Su & Conaway, 1995).

In summary, findings on Chinese elders’ involvement in their informal care and social networks are in line with previous research. Roe and colleagues (2009) in their qualitative study on fallers revealed that, besides an increased reliance on formal services following a fall, older people also relied on informal networks before and after their fall. This reliance denotes a change in health status and highlights the consequences of their fall which have impacted their ability to undertake activities of daily living. The findings on social support in fallers also parallel those found in people managing diabetes, asthma, heart disease, and epilepsy. Care and social support was valued and correlates positively with chronic illness self-management, especially for diabetes (Gallant, 2003). The different contributors to this network work in intricate ways to help Chinese elders manage their lives after a fall. The network also acts both
as a predisposing and an enabling factor when Chinese elders look for formal and informal health and social services. This will be discussed in greater detail in a later section.

5.2.3 Learning from the fall experience

Longevity and the adoration of life are highly valued in Chinese culture, and much effort is directed toward maintaining and sustaining health for as long as possible (Bowman & Hui, 2000). Also, Chinese culture emphasizes a “present orientation”, showing an inclination to deal with situations that are immediate and concrete (Bowman & Singer, 2001). The fall and its consequences, therefore, prompted Chinese elders who have fallen to look at events in retrospect. By carefully and thoughtfully identifying reasons for their own falls, Chinese elders may attempt to make changes out of fear of falling, or as a strategy to prevent future falls, or to exert personal control over life. Risk reappraisal in fallers has been reported in the literature. Roe and colleagues (2008) called this appraisal a “reflection”, while Huang (2005) called it a “thoughtful analysis of a series of falling episodes”. The purpose of this appraisal is to understand why the fall happened and to identify its causes, in order to better prevent a future fall (Roe et al., 2008).

5.2.3.1 Perceived causes

The perceived causes cited are comprehensive; ranging from biomechanical deterioration such as muscle weakness, lack of coordination, and loss of balance, to causes with a personality-orientation such as a hurrying manner and carelessness, to psychological conditions such as depression and bad mood, and environmental flaws such as a faulty carpet, or icy roads. Most of these factors are modifiable and managed by making adaptive changes such as using walking aids, depending on children for support, and learning to walk properly and slowly. However, some causes such as snow and icy roads in the winter may not be modifiable. Having grown up and lived in a sub-tropical and temperate climate where snow is a rarity,
Chinese elders found it particularly difficult to adapt to Canadian winter. Since the weather is out of their control, they are left with no choice but to avoid exposing themselves to the danger of the outdoors in the winter. Subsequent social isolation may exacerbate existing conditions such as depression, leading to negative sequelae (for example compromised mobility) that put some of these Chinese elders at an even higher risk for fall.

Most research has examined the existing information on falls, risk factors and causes with a view to risk assessment and prevention (Yardley et al., 2006). Researchers typically identify risk factors for falls using correlational research techniques. Some risk factors such as history of falls, although related to falls, are not causes per se but simply factors correlated to the likelihood of a fall (Zecevic, Saloni, Speechley, & Vandervoort, 2006). Few researchers have investigated falls from the perspectives of the individual who has fallen. Perceived causes cited by the fallers themselves like the ones presented in this study, are of special value in devising more effective falls prevention strategies, targeting factors that are of special concern to the fallers.

5.2.3.2 Adaptational Changes made to prevent future falls

Reflecting on, interpreting and understanding why and how the falls occurred is important, as respondents can learn from their experience and maintain control, choice and autonomy in their daily lives and activities by making adaptive changes accordingly. Changes may be targeted at altering extrinsic or intrinsic risk factors. Lee and colleagues (2008) labelled changes made to improve extrinsic factors as “structural changes”, while changes targeting at intrinsic factors are known as “intuitive changes”. These changes showed that our respondents have accepted the risk and decided to continue with their lives.

Structural changes reported by our respondents included environmental changes or home modifications, which support opportunities to move around in and manipulate the environment
in the event of a repeat fall. Reported environmental changes include the installation of hand rails, the use of walking aids, and the removal of mats or cords from the floor. Intuitive changes include modifications made to personal behaviours. Avoidance behaviour was reported as an intuitive change in several respondents. Specifically, fallers would avoid outdoor activities. Other intuitive changes include being more careful (“taking care”) when walking and slowing down.

In a qualitative study based in Hong Kong, Kong and colleagues (2002) found that Chinese elders who have fallen cited their carelessness or a problem in the physical environment as the reason for their fall. Fallers adhered to their explanations and refused to think of other possible reasons. Kong suggested that this adherence to simple and straightforward explanations regarding falling may suggest the faller’s lack of understanding of the possible causes of falls. In the current study, respondents were quite insightful in their analysis, providing a comprehensive view on perceived causes, reflecting a good understanding of fall risks and the willingness to make changes.

Some studies reported that fallers re-evaluate their ability after a fall. Fallers become aware of functional and physiological changes in their body as they age. Taking a positive attitude towards these changes means that elders accept aging as part of the course of life. This may serve as an advantage in dealing with fear of falling (Huang, 2005; Lee et al., 2008). Knowing their limitations, older people become more willing to take preventive approaches, such as putting non-slip mats in the bathtub as reported in the current study. This belief is also a reason for elders to decrease activity levels, to slow down, to perform age-appropriate activities, and to be more receptive to help.

Huang (2005) reported avoidance behaviour in Taiwanese fallers as an adaptational strategy to fear of falling. Specifically, fallers would avoid outdoor activities. This may not be
an effective adaptation (Huang, 2005), as it may lead to loss of functional independence and damage to social identity (Stokes et al., 2001; Yardley & Smith, 2002). However, avoidance behaviours allow fallers to preserve their own personal integrity, as they would have tried their best to prevent falls (Kong et al., 2002). In the current study, Chinese elders who have fallen regarded avoidance as a precaution and a sensible thing to do. They were found to avoid non-essential outdoor activities (e.g. going to dim-sum) on snowy and icy days in the winter months. However, they were proactive in looking for alternatives when essential outdoor activities (e.g. buying groceries) needed to be undertaken, albeit at a slower pace, and with care if there was a risk of falling. This may be seen as a strategic re-organization of their lives, and reflective of active risk management.

As Chinese elders in this study reflected on their fall incidents, they sometimes blamed themselves for their falls. Horton (2007) reported that female fallers are more susceptible to self-blame. They may state their own actions, their bad habits, their hurrying manner and carelessness as reasons for their falls. As they self-blame, female fallers are less likely to identify extrinsic risk factors for falls (Horton, 2007). Kong (2002) suggested that by believing that it is their fault, fallers can simply change their behaviours to prevent the fall from happening again. Therefore, self-blaming serves as a coping strategy “that provides a sense of control over falling, alleviates fear of uncertainty, and reduces feelings of powerlessness” (Kong et al., 2002).

5.2.3.3 Contingency plans when fall happens again

As much as our informants would like to prevent falling by modifying the risk factors that they are aware of, all of them concluded that falls are unpredictable. They “listen to Heavens” and allow life to take its course. As a result, most of them put minimal thoughts into contingency plans in case of a recurring fall.
This category has a “future orientation”, given that it is based on an assumption that an individual might fall again and required the participants to put themselves into a hypothetical situation. While planning for the future in some aspects of life, for example, in relation to finances, is valued in Chinese culture, many major life events are considered unpredictable and uncontrollable (Bowman & Singer, 2001). Some respondents preferred not to speak of the possibility of future falls as it was seen as a negative event. Chinese culture endorses that focusing on negative rather than positive thoughts can disturb emotional balance (Bowman & Singer, 2001). Also, all of Confucian, Taoist and Buddhist beliefs discourage attempts to talk about the future. Confucian and Taoist philosophy emphasizes the importance of maintaining physical, emotional, and social harmony by way of protecting health, community, and social relationships (Bowman & Singer, 2001). A central focus of Buddhist teaching is the attainment and maintenance of a clear, calm state of mind in which one is removed from worldly events. Since the traditional explanatory model of illness links the state of the mind with the health of the body (Bowman & Singer, 2001), Chinese elders were reluctant to anticipate a hypothetical event.

Some respondents, when sharing their views on contingency plans, did not believe that they could possibly know how they would react in a future situation. This seems to have its source in Buddhist thought, which places emphasis on the transitive and impermanent aspects of life (Gunaratne, 1982). What a person thinks and feels at the present moment, therefore, are not applicable in a future situation. Also, closely related to their “View of life” as discussed previously, Chinese elders are influenced by Taoism, which emphasizes the acceptance of a natural life cycle allowing things to unfold without influence them (Bowman & Singer, 2001). Contingency plans require that Chinese elders simulate a hypothetical situation, before a fall actually occurs, which is in conflict with the above views. Thus for many older Chinese
immigrants, only the onset of a fall would be considered grounds for initiating actions. This may explain, at least in part, the respondents’ unwillingness to anticipate future reaction and feelings about a hypothetical fall.

5.3 Potential specifications of the Andersen’s Behavioural model

Although the behavioural model has been widely used for decades, it has been criticized for leaving an unsatisfactory amount of variance in health and service use unexplained (Weitzman & Berry, 1992). For immigrants, in particular, the model omits important constructs like language and culture (Portes, Kyle, & Eaton, 1992). Andersen (1995) responded to these criticisms with an updated model that adds health beliefs to the initial set of predisposing characteristics, and explicitly distinguishes between perceived need and evaluated need (Figure 1). Although the updated model includes beliefs as predisposing variables, few recent empirical studies have tested this aspect of the model, to see if it is in fact more comprehensive and has more explanatory power for immigrants.

Findings from the current study support not only Andersen’s additions to the behavioural model, but also provide each of the factors with greater specification and elaboration of the newly added components and hypothesized linkages in the model, in the context of older Chinese immigrants who have fallen. Specifically, our findings suggest that cultural and immigrant-status related factors may be mechanisms by which health beliefs may influence use of service. The expanded models for older Chinese immigrants who have fallen are recursive, meaning that some predisposing factors can be influenced by, as well as influence other factors in the model.

“Health service use” needs to be defined for the purpose of discussion. The different types of services that older Chinese immigrants use after a fall may be largely grouped into two categories: formal health services, and informal care/social services. Formal health services that
older participants reported using include emergency room visits, Chinese-speaking family physicians and traditional Chinese healers such Tieh-ta master. Informal care and social services reported include friendly visits, transportation, meal preparation, shopping or minor chores.

Table 5.1 Summary of factors and domains affecting the use of formal and informal health, care and social services

<table>
<thead>
<tr>
<th>Factors</th>
<th>Domains and Their Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predisposing</td>
<td><strong>Health Beliefs</strong></td>
</tr>
<tr>
<td></td>
<td>Values concerning health and illness</td>
</tr>
<tr>
<td></td>
<td>Health is measured by functionality</td>
</tr>
<tr>
<td></td>
<td>Propensity to use self-care</td>
</tr>
<tr>
<td></td>
<td>Knowledge of fall injuries</td>
</tr>
<tr>
<td></td>
<td>Attitudes towards health services</td>
</tr>
<tr>
<td></td>
<td>Care providers: Linguistic compatibility, Interpersonal skill</td>
</tr>
<tr>
<td></td>
<td><strong>Transformed expression of filial piety</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Reflection on fall experience</strong></td>
</tr>
<tr>
<td></td>
<td>Presence of a contingency plan in case of future falls</td>
</tr>
<tr>
<td>Enabling</td>
<td><strong>Availability of services</strong></td>
</tr>
<tr>
<td></td>
<td>Family physicians</td>
</tr>
<tr>
<td></td>
<td>Treatment and referral</td>
</tr>
<tr>
<td></td>
<td><strong>Use of personal emergency alarm system</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Informal Care System</strong></td>
</tr>
<tr>
<td></td>
<td>Family, friends and neighbours, church</td>
</tr>
<tr>
<td></td>
<td>Financial support, Transportation, Information sources, Other tangible and practical needs</td>
</tr>
<tr>
<td></td>
<td>Homoethnic community</td>
</tr>
<tr>
<td></td>
<td>Social programs and media such as TV, radio, newspaper, magazine</td>
</tr>
<tr>
<td>Need</td>
<td><strong>Perceived, Evaluated and Unmet</strong></td>
</tr>
<tr>
<td></td>
<td>Physical and social</td>
</tr>
</tbody>
</table>

performed by family and friends, and church programs. According to Andersen’s Behavioural Model, Chinese elders’ use of these services is a function of predisposing, enabling/impeding and need factors. Two different models inform the use of formal and informal services in Chinese elders who have fallen. The factors and their domains are summarized in Table 5.1. Schematics of the models linking the domains are shown in Figures 5.1 and 5.2 (below).
5.3.1 Predisposing Factors

The predisposing component in the Andersen’s Behavioural model is made up of different domains, including demographic characteristics, health beliefs, and social structure (Andersen, 1995). These domains exist prior to or regardless of health service use, and define the background of an individual. Many predisposing factors, such as age and gender, represent biological imperatives, and are seen as predetermined and unalterable. In this study, “health beliefs” was found to be the most relevant domain for older Chinese immigrants who have fallen.
5.3.1.1 Health beliefs

Health beliefs, which are strongly influenced by cultural norms and values, provide a means of explaining how social structure might influence enabling resources and perceived need (Andersen, 1995). There are three aspects or specifications under “health beliefs” that predispose Chinese elders towards certain help-seeking behaviours: 1) values concerning health and illness, 2) knowledge about fall injuries, and 3) attitudes toward health services.

**Values concerning health and illness**: Chinese elders would consider themselves “healthy”, if they were able to function in their daily lives and/or were not experiencing symptoms of illness (Aroian et al., 2005). Although other groups of elders may employ the

---

**Figure 5.2 The role of predisposing, enabling and need factors in informal care and social services after a fall in older Chinese immigrants**

![Diagram showing the role of predisposing, enabling and need factors in informal care and social services after a fall in older Chinese immigrants.](image)
same criteria, it is more pronounced among Chinese elders (Aroian et al., 2005), as demonstrated by our respondents. For example, one respondent would ignore injuries (i.e. a missing tooth and bleeding gum) as a result of the fall. As she got up from the ground, she acted like the fall did not happen and continued walking with her granddaughter to a nearby plaza. The belief that health problems have to actively interfere with functional ability before professional help is needed directly affects the decision making pathway where fallers assess their perceived need for formal health services. This presents a disadvantage for Chinese elders since treatment for perceived “minor” injuries resulting from the fall would be delayed, potentially leading to further complications in the future.

Another Chinese cultural norm that contributes to how Chinese elders view health is the “propensity to use self-care”. Chinese elders use self-care as a major means of disease prevention. For example, they follow folk remedies, such as consuming chicken essence (traditional health supplements) and birds’ nests to feel reenergized (Kong et al., 2002). They also value self-care more than professional care when hit with minor ailments. However, sometimes the over-reliance on self-care may have negative outcomes, especially when paired with a lack of knowledge about fall injuries. The incorrect application of Tieh-ta Jow on swollen, fractured area by Chinese elders as observed in the current study demonstrates the synergistic relationship between reliance on self-care and lack of knowledge. Together, these specific health beliefs act as a negative predisposing factor towards formal health care utilization.

*Knowledge deficit:* Knowledge, awareness, and the ability to distinguish what is serious and what is not influence decision-making after a fall. Sometimes poor judgement may emerge after a fall and result in delayed treatment. This aspect of health belief is not unique to older Chinese immigrants, but rather applies to all elderly fallers. Specifically, first-time fallers may
have no expectations or knowledge of what a fall might entail. For example, some respondents from the current study mistook a swollen, fractured area as a musculoskeletal injury. Therefore, they are at a greater risk of underestimating their need to be seen by health professionals. Unlike other predisposing factors, this specific health belief may easily be modified by engaging Chinese elders in public health education or fall prevention programs, which aim at empowering them with knowledge of injuries (e.g. by building awareness of the potential appearance and sensation of common fall injuries such as fractures), and encourage them to seek help under such conditions.

Attitudes towards health services: Although Chinese elders preferred self-care (Aroian et al., 2005), they acknowledged their limits in treating certain injuries and symptoms. When perceived need was sufficiently high (e.g. an apparent fracture or unbearable pain), Chinese elders were willing to submit themselves to Western medical treatment.

Attitudes are defined as personal views concerning the use of service. Chinese elders’ attitudes towards health services are mixed, depending on the nature and the provider of the services. From ancient times, Chinese tradition has placed great trust in healers. According to Confucian perspectives, the core of the relationship between physicians and patients is the trustworthiness of the physician (Qui, 1991). This belief has transcended time and nowadays, doctors and health professionals are still trusted to be competent, experienced and principled individuals who hold privileged knowledge (Bowman & Singer, 2001). Chinese elders who have fallen hold healers and physicians in high regards – someone who has the power and knowledge to fix health problems. This attitude towards physicians acts as a predisposing factor which in turn propels respondents towards seeking help from their family physicians, either immediately after a fall, or for lingering symptoms resulting from the fall.
In this study, participants were generally satisfied with health care services provided by their family doctors who are Western-trained. This finding is congruent with those reported in previous studies that Chinese are just as likely as the general Canadian population to visit physicians, and they have a strong preference for Western over Chinese medicine, and for Western-trained doctors over Chinese practitioners (Chappell & Lai, 1998). In the current study, exposure to the West has affected the perception of Western medicine of many respondents from Hong Kong, despite their knowledge of the plethora of Chinese folk remedies. Since a high proportion of the group does not speak or understand English, all respondents use services with Chinese-speaking staff. This finding of language compatibility is consistent with that of Wang’s study (Wang et al., 2008), which reported that immigrants from Mainland China showed an overwhelming preference for Chinese-speaking family physicians regardless of socioeconomic and demographic status.

As we move on to the primary care level, participants showed less enthusiasm. After a fall, five fallers were hospitalized due to relatively serious injuries such as head trauma and fractures, and they had expressed negative views about mainstream health services. Their frustration may stem from perceived lack of care when they were hospitalized or their lack of confidence in Western medicine. The negative comments towards mainstream health care services identified in this study are most probably related to participants’ immigrant-status. Language barriers may cause misunderstanding and the failure to follow through with the doctor’s orders. Also, a lack of primary care delivery relevant for immigrant populations may have contributed to the frustration. Cultural norms and immigrant-status intertwine in a complex way to influence Chinese elders’ health beliefs, which in turn influence their choice and utilization of health care providers and health management strategies in the host society. “Like the other predisposing variables, health beliefs are not considered to be a direct reason for using
services but do result in differences in inclination toward use of health services.” (Andersen, 1995). Rather, health beliefs provide a link to perceived need which may or may not lead to health service use.

5.3.1.2 Other predisposing factors

One factor that might predispose respondents to use more paid informal help in the current study is the transformed expression of filial piety. Children were found to provide less care-giving but more financial support, predisposing Chinese elders who have fallen to seek out alternative resources such as an hourly maid to help them with house chores and activities of daily living.

In terms of psychological resources, Chinese elders who reflected on their fall experience and were able to come up with a thoughtful contingency plan are at an advantage in terms of using formal health services in the future. A sense of preparedness and mastery (Ruthig et al., 2007) are important psychological constructs that allow Chinese elders who have fallen to make the right judgement to use proper help in case of a future fall.

5.3.2 Enabling Factors

Enabling characteristics are necessary but not sufficient for use. Enabling factors specific for Chinese elders who have fallen may include: Availability of services, Use of personal emergency alarm system, and Informal support network.

5.3.2.1 Availability of services

Most respondents from this study lived in dense, geographically clustered Chinese neighbourhoods. There are numerous local, Chinese-speaking providers including family physicians. The availability of highly accessible linguistically compatible services acts as an enabling factor for formal health service use.
Indeed, many respondents reported that their physician was involved in the help-seeking pathway, either immediately or shortly after the fall. This demonstrated the great trust that respondents had in their family physicians. Fallers would present themselves at the clinic with apparent physical symptoms such as pain or swelling. Family physicians, trained to diagnose based on empirical evidence and clinical history, would then treat and/or recommend services to ameliorate the physical symptoms (e.g. physiotherapy which focuses on improving mobility). Therefore, the availability of Chinese-speaking family physicians enables Chinese elders who have fallen to utilize health care targeted at treating physical and functional problems.

However, physicians’ failure to look beyond physical injuries and recommend social programs, such as fall prevention programs or behavioural counselling, may in turn lessen Chinese elders’ perceived need for social programs. In this sense, physician visits may be a disabling factor in Chinese elders’ use of social programs.

5.3.2.2 Use of personal emergency alarm system

Another service that is available, accessible and utilized by Chinese elders who have fallen is the personal emergency alarm system installed in their buildings. As respondents fall alone, when family members and carers may not be available, they use these systems to help them to get up, which may connect them to formal health care. The use of these systems, therefore, fits nicely into the behavioural model as an enabling factor.

5.3.2.3 Informal Care System

As discussed earlier, family, friends, neighbours, church and Chinese communities provide informal care support such as transportation, financial support and other tangible and practical needs, which act as an enabling factor for both formal and informal care use. These networks are also a source of information for Chinese elders who have fallen, and connect them to various forms of service. Every participant had a different informal network, and depending
on the size and the knowledge of these networks, they may or may not get a comprehensive view of services available to them.

5.3.3 Need Factors

According to the original Andersen’s model, “need” must be present for use actually to take place. However, in the case of a fall, the need to access formal and informal health and care support is a subjective matter. Unlike an acute, severe heart attack, which almost always necessitates the attention of the health care system, the consequences of a fall are more variable. The predisposing and enabling factors have an immense influence on the need factors. There is a bigger threshold to be overcome (e.g. a serious injury such as a fracture which causes the faller to be immobile) before the perceived need would lead to the use of health services. Perceived need, in contrast to need evaluated by others, refers to how people view their own health and functional state. In falling, perceived need is affected by predisposing factors such as health beliefs and enabling factors such as physician referral.

Implied in the data is the concept of unmet needs, which refers to needs that are not satisfied due to the unavailability of, or problem accessing services. The frustration reported by some respondents over the lack of primary care service that is sensitive to their cultural needs, is an example of unmet needs. This in turn confirms the negative attitudes the respondents had towards these services, and further predispose them to not use primary care in the future.

The issue of unmet need is also prominent pre- and post-fall when informal care and social services are important. None of the respondents mentioned participation in a fall prevention program, yet several of them were repeat fallers, meaning they were at high risk of falling again. Without a fall prevention program that is sensitive to the cultural needs to these fallers, they are left with poor knowledge of fall injuries, poor resources to seek help after a fall, and no counselling or professional advice in making adaptational changes post-fall. These
unmet needs may be reasons Chinese elder must depend on their informal social network of family and friends for information resources.

5.4 Summary of Discussion

As aforementioned, the current dissertation used focussed ethnography, which is informed by critical social theory, to explore how urban old Chinese immigrants experience falling. Health beliefs, cultural norms and immigrant status framed how participants constructed their experience. Participants’ responses demonstrated how systemic racism and oppression affected their access to health care services and their ability to manage the consequences of falling. A fall in an older Chinese immigrant also elicits a wide range of psychosocial responses which illustrate the complexity, intricacy, and potentials of the Andersen’s model. Most studies have used the model to predict the use of a specific type of health service, for example, the use of ambulatory care (Thode, Bergmann, Kamtsiuris, & Kurth, 2005). Factors that predict discretionary versus nondiscretionary or institutional versus community-based service use may be quite different, as has been noted by Andersen (1995). A fall in an older Chinese immigrant further challenged the researcher to think outside of the model and consider what services an older Chinese immigrant may need post-fall and how to access these different types of services.

The dynamic relationship between the three main factors (i.e. predisposing, enabling and need), and the different elements under them acts as undercurrent that may tug the Chinese elders back and forth when they make a decision to seek help. There is great variability within the need factor in the case of a fall. For example, the presence, absence and the severity of injuries and the perceived need among other factors may affect need. The main concerns for Chinese elders who have fallen are: what kind of help do they really need (evaluated need), do they know and think they need it (health belief and perceived need), and do they know where to get the help they need (knowledge, availability and access). Each of these factors have cultural
and immigrant-status underpinnings, as discussed previously. Future research may investigate how systemic oppression such as biased policies and resource distribution within the health care system, and other external environmental factors may influence health service use in the older Chinese immigrant population.

5.5 Practical Implications

The themes discussed in this chapter showed that several service gaps exist in the current care system, both formal and informal. This study posits that cultural and immigrant-status related factors can play important roles in service use, and this has key implications for policy and service delivery. Efforts to improve access to and availability of services across the continuum of care for Chinese elders who have fallen must address factors that are most relevant to their decisions to use services. The rest of the chapter focuses on what may be done, on both the personal and system level, so that Chinese elders who have fallen may be better cared for.

5.5.1 Existing Knowledge on Social and Health Services for Fallers

Before discussing the implications and state the recommendations, it is useful to look at existing literature on falls among non-immigrant Canadian seniors and understand the types of services that are available to them. The literature shows that excellent effort have been put into making health and social programs available to elderly fallers in the mainstream society in North America. Specifically, fall prevention programs are widely available and promoted amongst community-dwelling older adults (Bunn, Dickinson, Barnett-Page, McInnes, & Horton, 2008). These programs have different focuses: some utilized Tai-Chi to increase elders’ balance and gait and to reduce fear of falling (Li et al., 2008; Lin et al., 2006), some focused on behavioural change (Brown, Gottschalk, Van Ness, Fortinsky, & Tinetti, 2005), and others have multi-factorial focus.
Not only are the programs widely available, they are also well-evaluated. For example, the effectiveness of exercise-alone and multi-factorial interventions was compared, and it was shown that exercise-alone interventions were about 5 times more effective compared to multi-factorial ones. Exercise-alone interventions were also considered to be more cost-effective and easier to implement. The acceptability of services to older people were also considered (Bunn et al., 2008; Yardley et al., 2006), as researchers investigated the facilitators and barriers to participation in different fall prevention programs.

In Ontario, fall prevention is also high on the health policy agenda. The Registered Nurses’ Association of Ontario has devised best practice guidelines for individuals and organizations to establish robust resident fall prevention program. The highlight is a 12-step process which includes identifying service gaps, engaging stakeholders, active promotion, and evaluating outcome measures (Registered Nurses’ Association of Ontario, 2006).

Identifying service gaps and engaging the appropriate personnel to provide culturally sensitive programs that are acceptable to Chinese elders remain a challenge. Changes need to happen in two levels:

1. Individual level
   a. Intrinsic change in health professionals’ attitudes towards caring for Chinese elders who have fallen is necessary so that they may understand the need to provide cultural-sensitive education to fallers and to effect social change,
   b. Falls prevention strategies for fallers should contain both physical risk-reduction and psychosocial elements (e.g. boosting self-esteem and optimism),
   c. Education for family and community members so that together, they may build a meaningful social network to support and care for the fallers.
2. **System level:**

   a. Distribute linguistically and culturally appropriate education materials to older Chinese adults

   b. Constant promotion and evaluation of the well-accepted Personal Emergency Alarm System,

   c. Invite Chinese agencies to join forces in building a centralized system where Chinese elders who have fallen may easily access falls-related resources such as immediate help after a fall, assistance for activities of daily living, and falls prevention programs.

5.5.2 **Health care professionals should be leaders in facilitating changes**

   Our health care system restricts health professionals’ attention to individuals. For example, there is a narrow focus on identifying symptoms and making a diagnosis (Waitzkin, 1989). As a result, the social context in which Chinese elders live may be overlooked. In order to address this issue, changes should be expected of health professionals on an intrinsic level. For example, health administrators and program managers may adopt the critical social theory and actively examine how oppressive arrangements in society, such as poverty, living arrangements, language barriers, discrimination etc. operate to hinder services access of the fallers. More attention may be paid to issues related to systemic racism and political economy. Within this framework, professionals may become more aware of conflicts that exist in power relationships, and can consider how they may participate in improving and reproducing social structures, which in turn may determine how they define, assess, prioritize, and respond to health and illness. Utilizing the critical social theory, health professionals may expand their scope of practice in ways that address their fallers’ health challenges on a societal level, rather than just on an individual level.
5.5.3 Fall education

Chinese-speaking health professionals and family physicians from the Chinese elders’ immediate communities are often the first and only people Chinese elders would contact after the fall. Unfortunately, the interaction between health professionals and fallers at clinic visits following a fall is extremely brief. Understandably, health professionals are focused on dealing with the physical consequences of the fall, hence missing the short window of opportunity to educate and inform fallers of the many facets of falls, and to engage them in effective, individually tailored interventions. Health professionals must remember their role in education. Chinese elders should be informed of the common injuries after a fall, urgent management and how to navigate the system and properly seek help in case of a fall.

When counselling Chinese elders on falls prevention, health professionals should encourage fallers to make changes that are appropriate for them. As evidenced by the adaptational changes that Chinese elders made after a fall, when health professionals do educate fallers, their advice has a strong focus on risk reduction, which may have a narrow definition that is defined purely in physical or functional terms. If interventions are focused only on changing observable, external factors, what older people believe puts them most at risk might not be addressed (Lee et al., 2008). Also, as fallers modify their physical environment and concentrate on returning to optimal function, they may neglect the need for psychosocial interventions, for example to promote self-esteem or confidence, or to rebuild their post-fall perceptions of control and optimism (Ruthig et al., 2007). Strategies that emphasize opportunities and value social identities should be encouraged.

At the public health level, more attention must be paid to the dissemination of education materials in the immigrant population. Extensive prior research in falls has resulted in an abundance of falls prevention resources (Veterans Affair Canada, 2007). However, these
resources will only be useful if they are provided in a form that is both understandable and acceptable to older Chinese immigrants. Educational pamphlets and programs on falls and falls prevention translated into Chinese and effectively distributed and disseminated by practitioners trusted by the elders may be effective. These strategies may empower older Chinese immigrants with knowledge in this field, and encourage them to seek proper medical attention after a fall.

5.5.4 Continuous promotion of the proper use of personal emergency alarm system

Owing to the rapport and trust that bilingual and bicultural response care associates have established with our informants who live in buildings equipped with the personal emergency alarm systems, these older Chinese immigrants are more compliant in wearing the alarm around their neck or wrist at all times. Wearing the alarm gives our informants a sense of security, as they are assured that they will be connected with proper medical help whenever needed. Informants also have no problem pressing the button in times of emergency, as evidenced in our interview data, where all those who fell indoors summoned help via activating the alarm. This finding contrasts with the general finding among care providers that older people’s access to and adherence to using personal body-worn alarms is low (Fleming et al., 2008; Porter, 2005; Roe et al., 2008), since there may be resistance to their changing identity and dependence on others. Care providers in these buildings should continue to promote and encourage the proper use of the alarm system. Also, the manufacturers of the devices should be provided with feedback so that older people’s voices could be taken seriously in the future refinement of the devices.

5.5.5 Maintaining a healthy informal support network

While Chinese-speaking health professionals were perceived as a credible source of information or advice on fall and falls prevention, friendship also played an important role in fallers’ overall well-being. Social support and care from friends should be encouraged. Neighbours emerged as an important source of social support and friendship as fallers were
disconnected from their friends who lived far away. Since our respondents lived in buildings with a large population of Chinese-speaking elders, building management may further foster this kind of friendship by organizing activities for residents.

As noted in Section 5.1.4, Chinese elders who have fallen may be reluctant to talk about their fall, or unwilling to associate themselves with falls to avoid being negatively stereotyped as frail and vulnerable. However, adult children are still encouraged to go beyond the superficial relationship they have with their parents, where financial matters and mundane caregiving take priority, and ask older Chinese immigrants to reflect on their fall experience. Together, the adult children and their parents should discuss the fall in depth, and to share the emotional aspects, in order to enhance Chinese elders’ psychological well-being.

5.5.6 Joint effort from Chinese agencies to develop a centralized system for Chinese elders

Family, friends, neighbours, church and the media together form a complex informal care and social network which enabled Chinese elders to manage the functional and psychological consequences of a fall. While having multiple resources may be advantageous, the fact that Chinese elders who have fallen had to rely on multiple sources of informal information such as word of mouth and the media to help them make a decision highlights the inefficiency of information dissemination and counselling in falls either because Chinese elders did not know how to access the formal system, or the formal system lacked information about the service they wanted.

Indeed, there lacks a centralized system which Chinese elders who have fallen can access for services that fit their needs. Chinese elders have no option but to go through a circuitous process when applying for service after a fall. In the Greater Toronto Area, there are four major senior outreach organizations well-known to the Chinese community: Carefirst Seniors and Community Services Association, Mon Sheong Foundation, St. Paul's L'Amoreaux
Centre, and Yee Hong Centre for Geriatric Care. These organizations could collaborate to develop a centralized system, through which Chinese elders may be screened and referred to treatment after a fall. Ideally, Chinese elders would be flagged as they report a fall and followed up for service referral. Agencies serving the Chinese-Canadian elderly population should also expand their service and develop educational programs for high-risk fallers living in the community, as well as prevention programs sensitive to their cultural needs.

Regarding falls prevention programs, interestingly, none of the respondents talked about participating in a falls prevention program as a way to prevent falls. Again, this either reflects their inability to access the program, or their unwillingness to access the programs because existing prevention programs do not serve their needs. It is important that programs be developed that older Chinese immigrants will want to attend in order to limit their personal risk factors for falls, especially as evidence is available that fall-prevention programs are effective in preventing falls (Clemson et al., 2004). The present study, by assessing perceived causes and vulnerability to falls and coping mechanisms in older Chinese immigrants who have fallen, serves as background material for devising culturally sensitive programs suitable for this particular population. Judging from the success and popularity of recreational and educational programs available in Chinese communities (as discussed in “Involvement in homoethnic community” in Section 5.2.2.4, falls prevention programs sensitive to Chinese cultural norms and values, offered in Chinese languages, and promoted by the Chinese media, would be well received if promoted properly. Considering the social significance of Christian churches among Chinese immigrants, Chinese agencies may also delegate outreach teams to these churches to host fall prevention workshops for the parishioners.
5.6 Limitations

One of the most easily identified limitations of the study is the researcher’s closeness to the participants and the material itself. It may be argued, however, that this is at once a limitation and a great benefit to the research in that the researcher’s closeness to and knowledge of this community of people allowed her to recognize their semantic habits and their struggles. While most advice on qualitative methods would argue that the goal as a qualitative researcher is not to achieve generalizability nor objectivity, a social scientist must attempt to ascertain certain ‘truths’ from the situation which implies an element of distance, abstraction or ‘stepping back’. Member checks and triangulation were performed to address this natural limitation of the project.

I would also like to comment on the transferability of the study. As with many ethnographic research projects, this research employed a combination of purposeful sampling strategies, which provided the researcher with the opportunity to select information rich cases for the in-depth study. For example, I depended on initial participants and other key informants I had contact with during the data-collection phase of the research to assist in identifying subsequent participants. Also, disconfirming/confirming cases were included in order to elaborate and deepen initial analysis by confirming some emerging issues which are not clear, seeking exceptions and testing variation. Despite the intention to interview a heterogeneous sample by engaging the help of contacts from three major Chinese community agencies, the resultant sample was relatively homogenous, and did not produce a representative sample of Chinese elders who have fallen in Toronto. This limitation may have stemmed from language restrictions. Only Cantonese-speaking elders were interviewed in the current study, as the researcher is fluent in Cantonese. This homogenous sample mainly represented immigrants from Hong Kong (a former British colony with cultural elements distinct from those in Mainland China), who may have different cultural or religious backgrounds from other Chinese sub-groups speaking different dialects.
Thus, results may not be applicable to all Chinese elders who have fallen in Toronto, or those living in other cities. It is also important to note that the respondents originated from a major city, with relatively easy access to a wider range of resources, which may not be readily available to those living in rural settings. Therefore, older Chinese immigrants located in rural areas may experience and respond to falls differently. All these factors might render the study results relatively non-generalizable to other populations.

It should be noted, however, that transferability is primarily the responsibility of the one doing the generalizing. My responsibility as a researcher, on the other hand, is simply to enhance transferability by giving thorough description of the research context and the assumptions that were central to the research. These assumptions were made in the beginning of Chapter 2, showing that I am aware of the unique characteristics of the sample that would allow for meaningful qualitative analysis – by interviewing the most information-rich individuals, the research purpose of understanding the falling experience in this population was achieved. Nevertheless, the study results generated interest in how these findings may be applicable to individuals with characteristics different from those of the specific sample used in this study. These interests should lead to future studies, and will be discussed in Chapter 6.
6 FUTURE DIRECTIONS AND CONCLUSION

In focussed ethnography, scientific research is viewed as a platform which encourages the continuous process of challenging and evaluating existing practice, the results of which inform and innovate new practices. To embrace the tenets of focussed ethnography, I would like to make some recommendations for future research, in order to promote social consciousness and to effect societal change. I will then conclude with reflections on changes which occurred at a personal level as a result of the current study.

6.1 Future Research

1) Enhance heterogeneity in sampling: As discussed in the Limitation section, this research employed a combination of purposeful sampling strategies, which provided the researcher with the opportunity to select information rich cases for the in-depth study. For example, disconfirming/confirming cases allowed the researcher to elaborate and deepen initial analysis by confirming some emerging issues which were not clear, seeking exceptions and testing variation. Despite the intention to interview a heterogeneous sample by engaging the help of contacts from three major Chinese community agencies, the resultant sample is relatively homogenous – most live in retirement housing, originated in Hong Kong (a former British colony with cultural elements distinct from those in Mainland China), and were female. The fact that I restricted recruitment to the city of Toronto also excluded potential participants living in rural areas, where access to services after a fall may be met with even more challenges.

Future studies may consider employing a maximum variation sampling strategy, which involves purposefully picking a wide range of variation on dimensions of interest (Patton, 1990). This may enhance heterogeneity and also identifies important common patterns that cut across variations. For example, fallers living in rural areas should be included to look at how filial piety is expressed in these regions where fallers presumably have access to even more
limited resources and service, and to see if adult children may play a more direct role in the care of their parents. Also, people living in homes who do not have easy access to personal emergency alarms should be included to understand their immediate responses to falls. Lastly, people speaking other Chinese dialects, such as Mandarin, should be involved as they represent people coming from different regions of Mainland China who may share different economic, cultural, and political backgrounds than those originating from Hong Kong.

2) Further testing of the adapted Andersen’s behavioural model: By specifying the predisposing, enabling and need factors of Andersen’s behavioural model, the current study aimed at enhancing its explanatory power in future studies investigating race/ethnicity and formal/informal service use in fallers. Expanding on recommendation #1, future research may examine subjects in other geographic areas and among other ethnic groups of elders, both in immigrant and non-immigrant populations, to identify the relevant set of health beliefs and characteristics of their local health care system and external environment. The inclusion of group-specific health beliefs will enhance the precision and explanatory power of the model, and provide data to promote appropriate service use. Identifying and measuring health beliefs would also facilitate identifying intra- as well as inter-group differences. For example, the hypothesis that differences in health service utilization among Asian subgroups may be due to differences in commonly held cultural norms and beliefs may be tested. Future studies could also empirically test the proposed expanded model, using multistage statistical modeling to adequately assess direct and indirect effects hypothesized in the model. By conducting additional analysis using the ethnic lens, the feelings of power and powerlessness which vary among individuals with different levels of education, socioeconomic status and age will be made clear, and a better understanding of how these groups combat the different axis of marginalization may be achieved. Future research should also investigate how policies and
resources within the health care system, and other external environmental factors may influence health service use in these populations.

3) Investigate gender differences in the fall experience: Future studies may also focus on gender differences in fall experience, specifically gendered meaning of fall risks. Using a convenience sample in the current study resulted in a disproportionate representation of male and female, as 88.9% of the research sample was women, and might have biased the results. According to Horton (2007), male and female fallers have different perceptions of the risk of falling, which in turn influence their approaches to fall prevention. Female fallers may naturally blame their own carelessness for the falls, thereby ignoring the need to explore further what actually puts them at risk and necessitating health professionals to spell out the risks that predispose elders to falling. Future fall research could redress this gap by recruiting more male fallers in order to understand this gender difference and its implications for improving the effectiveness of fall prevention strategies.

4) Further explore transformed expression of filial piety in different ethnic subgroups: As mentioned in recommendation #1, the concept of transformed expression of filial piety should be further explored in a larger sample of older Chinese immigrants, involving different ethnic subgroups. A wider range of living arrangements may be identified and their impact on the expression of filial piety may be examined. Children’s perceptions should be considered, and compared to those of their parents, in order to identify parallels and conflicts. Such studies will inform the extent to which filial piety among Chinese immigrants is becoming more similar to parent-child relationships in the West.

5) Evaluate health and social services: Technology in aging has become a popular research topic. The success of personal emergency alarm systems among old Chinese immigrant fallers in the current study should encourage further refinement in the execution,
promotion and education of technologically based systems such as personal alarms among Chinese and other ethnic subgroups. Also, other forms of social alarms such as telemonitoring in the community, fall detectors and bed occupancy sensors may be explored (Horton, 2008). The success of these new devices will depend on the extent of commitment from the manufacturers, users and health service providers. Issues such as feasibility and cost-effectiveness of devices, violation of privacy, and adherence should be addressed when exploring the utility of these new technological devices.

6.2 Personal Reflection

On a personal level, this dissertation provides me with the opportunity to understand my role as a qualitative researcher. While I began this research with a qualitative approach, further readings in critical social theory really broadened and deepened my understanding and appreciation of this framework. Particularly, the critical perspectives have convinced me of the complex evolution of societal inequalities, and as a researcher, my mission is to understand and comprehensively address these disparities. As mentioned in Section 3.6, my passion to advocate for the elderly population motivated me to complete this study. This ideal is now enhanced and supported by the spirit of critical social theory, which intends to liberate those members of the society who are oppressed by certain social structures. The assumption of critical social theory, that cultural, political and economic circumstances in society are not natural and fixed, by are rather historically created and alterable, further encouraged me to seek to challenge conventional assumptions and social arrangements to move beyond the “what is” to the “what could be”. This has resulted in a number of recommendations as presented in the earlier part of this chapter.

As a health service researcher who employed semi-structured interviews as a data collection tool, it is important to understand how power relations in the research process affect
communication between the interviewer and the interviewees. In particular, the ideals of partnership advocated by critical social theory inspired me to treat my interviewees as equal partners in healthcare decision-making processes. However, I am aware of two factors that may constrain this equal partnership. The first factor is the uneven distribution of background knowledge related to the research topic between myself and the participants. By virtue of having this knowledge, I was cast into an authority role during the interview. The second factor is the societal stereotyping of older Chinese immigrants as coming from a marginalized population, and that they are vulnerable and unable to make “good” decisions. As a result of this stereotype, the participants may be reluctant to be included in conversations and decisions regarding access to care after the fall. The emancipatory dimension of critical social theory has challenged me to be constantly vigilant of and to address this power imbalance. With this awareness, I de-emphasized my role as a researcher, and adopted a dialogic approach with the older Chinese immigrants, which acknowledged them as “knowledgeable actors in their own lives” (Stevens, 2004). It is my hope that, through the interview experience, older Chinese immigrants will take a more proactive role, not only as service users, but also in the delivery and governance of services.

6.3 Conclusion

In conclusion, to the author’s knowledge, there is currently no existing research conducted in immigrant populations that explores the responses of individuals to falling. This study provides an insight into the cultural and immigrant factors that influence the psychosocial experience of older Chinese immigrants after a fall. The data reveals rich insights into the thoughts, beliefs and feelings of Chinese elders who have fallen, and serves as the first step towards improving health care services delivery in a marginalized population of older Chinese immigrants.
Future applications of this study to future research includes improving knowledge deficit of post-fall procedures, supporting elders and their families in adapted expressions of filial piety, arming health care providers with knowledge of fall related interventions that are culturally acceptable and relevant. The implications of the current findings, such as the feasibility of outreach counselling and education sensitive to the cultural needs of Chinese elders to facilitate better recovery after a fall should be evaluated. A better understanding of the psychosocial responses of older Chinese immigrants to falls may enhance the effectiveness of policies and programs designed to address disparities in formal and informal care service use, and allow the development of a more positive attitude and active approach towards falls prevention among older Chinese immigrants.
CLOSING REMARKS

On January 30, 2010, around 13:30 local time, a five-storey apartment building of more than 50 years old in Hung Hom, Hong Kong’s Kowloon district, collapsed suddenly. Four people were confirmed dead and two others injured. One of the survivors commented on the condition of the building:

“The 200m² room we lived in has a cooking area. Water was constantly seeping through the ceiling, and the cement and paint were coming off. There were also cracks on the wall.” Accessed and translated from MingPao News, January 31, 2010

An elderly person who has experienced a fall may be compared to a collapsing building. The first fall is like a crack on the wall in an over-aged building, and should act as a warning sign and motivation for the individual to address the problem. Ignoring the signs will only lead to more falls in the future, which may become progressively serious and potentially fatal.
REFERENCES


Andersen, R. (1968). *A behavioural model of families' use of health services.* Chicago: Center for Health Administration Studies, Graduate School of Business, University of Chicago.


Fleming, J., Brayne, C., & and the Cambridge City over-75s Cohort (CC75C) study collaboration. (2008). Inability to get up after falling, subsequent time on floor, and summoning help: Prospective cohort study in people over 90. *BMJ, 337*(nov17_1), a2227.


Liehr, P. R., Marcus, M. T., & Cameron, C. (2005). Qualitative approaches to research. In G. LoBiondo-Wood, J. Haber, C. Cameron & M. D. Singh (Eds.), *Nursing research in Canada: Methods, critical appraisal, and utilization* (). Toronto, Canada: Elsevier.


Appendix A: Consent Form (Original version and Chinese translation)

Informed Consent Form for Participation

INVESTIGATOR: Mary Chiu (Tel: 416-586-4800 ext. 2473)

TITLE: Psychosocial Responses to Falling in Older Chinese Immigrants Living in the Community

You are being asked to take part in a research study. Before agreeing to participate in this study, it is important that you read and understand the following explanation of the proposed study procedures. The following information describes the purpose, procedures, benefits, discomforts, risks and precautions associated with this study. It also describes your right to refuse to participate or withdraw from the study at any time. In order to decide whether you wish to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision. This is known as the informed consent process. Please ask the study staff to explain any words you don’t understand before signing this consent form. Make sure all your questions have been answered to your satisfaction before signing this document.

Purpose
You have been asked to participate in a study, which is designed to learn more about the risk factors for falling and recurrent falling in Chinese elders living in the community. Specifically, the study aims at exploring the falling experience and fall management of Chinese elders. Information gathered from the study will be used to develop effective falls preventive measures for Chinese older adults living at home.

Procedures
This study asks for your participation and requires your consent to collect information about the general health and other factors that might predispose you to falling. Specifically, if you agree to participate in the study we will ask you to:

1. Complete a brief general information questionnaire which asks about your socio-demographic information and your general health. This will be followed by a set of assessments which evaluate your functional status and psychological well-being (Specifically, you will be asked about the medications you have been prescribed, the frequency and type of exercises you do, your ability to balance your gait, your ability to take care of yourself, any pain you might be experiencing, your psychological well-being, your perception of falling, and your cognitive status). The entire meeting will take a maximum of 1 hour.
2. You will then be contacted by telephone by the researcher to see how you are doing and verify the findings of the study.

This study will involve 20 participants like yourself (and possibly your family members, who might be involved with translation). In doing this study and collecting information from many participants, researchers may be able to identify culturally relevant risk factors for falling in Chinese elders.
Benefits
Participation in this study involves no interference with your care at Mount Sinai Hospital or by your community doctor. You will not receive any medical benefit from your participation in this study. Information learned from this study, however, may benefit elders in the future.

Risks
There are no known risks to completing this study, but you are encouraged to seek the advice of a professional should it raise any concerns about your physical or mental health.

Confidentiality
All information obtained during the study will be held in strict confidence. You will be identified with a study number only. No names or identifying information will be used in any publication or presentations. No information identifying you will be transferred outside the investigators in this study. During the regular monitoring of your study or in the event of an audit, your medical record may be reviewed by the Mount Sinai Hospital Research Ethics Board.

Participation
Your participation in this study is completely voluntary. You can choose not to participate or you may withdraw at any time without affecting your medical care.

Compensation
If you become ill or are physically injured as a result of participation in this study, medical treatment will be provided. In no way does signing this consent form waive your legal rights nor does it relieve the investigators or involved institutions from their legal and professional responsibilities.

Questions
If you have any questions about the study, please call Mary Chiu at (416) 586-4800. If you have any questions about your rights as a research subject, please call Dr. R. Heslegrave, Chair of the Mount Sinai Hospital Research Ethics Board at (416) 586-4875. (This person is not involved with the research project in any way and calling him will not affect your participation in the study).

Consent
I have had the opportunity to discuss this study and my questions have been answered to my satisfaction. I consent to take part in the study with the understanding I may withdraw at any time without affecting my medical care. I have received a signed copy of this consent form. I voluntarily consent to participate in this study.

______________________________  _____________________________  ____________
Participant’s Name (Please Print)  Participant’s Signature  Date

I confirm that I have explained the nature and purpose of the study to the subject named above. I have answered all questions.

______________________________  _____________________________  ____________
Name of Person Obtaining Consent  Signature  Date
參與者同意書

研究員: Mary Chiu 趙小姐（電話: 416-586-4800 內線 2473）

研究題目：居住在社區內華裔老年人，在跌倒後的心理反應及人際網絡與關係。

現在閣下被邀請參與這項研究計劃。在閣下未正式同意參與這項研究之前，閱讀和明白有關計劃所建議的研究程序是十分重要。以下的資料說明有關本研究計劃的目的、程序、研究所帶來的益處、不良的影響及風險、及警告等各事項，同時亦清楚告訴閣下，你有權可以隨時拒絕或終止參與此項研究計劃。在閣下決定是否參與此研究計劃之前，你需要完全明白有關的研究計劃所帶來的影響及益處，這便是獲得閣下同意所需要的情況。在閣下簽署本同意書之前，若有不明白的地方，請與協助研究的醫生或職員查詢，閣下在肯定所有的問題均獲得完全滿意的答覆後，才請簽署此同意書。

研究目的
閣下將會被要求參與一個研究，這安排是要了解有關居住在社區的華裔老年人的跌倒和經常跌倒的危機因素。具體而言，研究旨在了解華裔老年人的跌倒經驗及應變方法。獲得的資料將會用來發展一套協助居住在社區內華裔老年人預防跌倒的有效方法。

研究程序
在邀請閣下參與這項研究是需要獲得閣下同意，搜集有關令閣下整體健康及可能導致閣下跌倒的有關因素等資料。如果你同意參與這項研究，我們會邀請閣下：

1. 填寫一份詳細的問卷，問卷是有關閣下一般的個人資料及健康問題，之後，我們會為閣下進行一些檢驗評估，如：閣下身體活動的狀態及心理健康（特別是研究員會詢問有關閣下所服用的藥物、所做的運動及次數、平衡身體的步態、及自我照顧的能力、以往身體痛楚的經驗、心理健康的狀態、跌倒的感覺、認知狀態等），整個面談需要最多約一小時。
2. 研究員會再與閣下以電話聯絡，詢問閣下的情況和紀錄面談後所發生任何改變。

這研究將會邀請大約二十名參與者(可能包括家庭成員作為傳譯)，進行是次研究需要從眾多參加者搜集中資料，研究員可能尋找出文化是否其中一項導致華裔老年人跌倒的危機因素。

益處
參與此項研究計劃並不會影響閣下在西乃山醫院或在社區內的醫生所獲得的護理。閣下參與這項研究計劃雖然不會得到任何在醫療上的益處，但研究的資料及成果可以為將來的老年人得益。

風險
參與此項研究計劃並沒有任何風險，假若在研究過程中閣下有任何身體或精神健康的問題時，閣下需要聽取專業人士的意見。

保密
研究所有搜集的所有資料將會嚴加保密。在所有研究文件及其分析上，我們會以編號以辨認閣下的資料，在任何公開的出版或報告中，閣下的個人身份及資料將不會被披露，閣下的資料絕不會
用在其他的研究計劃上，而研究員將會盡一切努力保障閣下的私穩。在一般的研究監察或審查時，閣下的醫療紀錄可能被西乃山醫院的研究道德小組查閱。

參與
閣下參與此項研究計劃是完全自願的。閣下有自由在任何時間拒絕或終止參與此項研究計劃，而不會影響閣下所獲得的醫療護理。

補償
如果閣下因為參與此項研究計劃而患病或身體受傷，我們會負責所需要的醫療照顧。閣下簽署這份同意書是不減少閣下在法律上的權利或豁免研究員或參與機構在法律上及和專業上的責任。

問題
如果閣下有任何有關此項研究計劃的問題時，請致電趙小姐，電話: (416) 586-4800。如果閣下有關於作為一個研究對象權益有任何問題，請致電西乃山醫院研究道德小組 Dr. R. Heslegrave，電話: (416) 586-4875（這位人士並不涉及此項研究計劃，與他聯絡並不會影響閣下參與此項研究計劃）。

同意
我有充足機會討論此項研究計劃，我的問題亦獲得滿意的回答，我同意參與此研究計劃和明白我可以隨時終止參與此項研究計劃而不會影響我的醫療護理，我已收到一份已簽署的同意書，我是自願參與此項研究計劃。

參與者姓名 (請以正楷填寫)   參與者簽署   日期

我重申：我已清楚向上述參與者解釋此項研究計劃的性質及其目的，我已回答參與者的所有問題。

獲取同意人士姓名   簽署   日期
Appendix B: Descriptions of agencies

Carefirst Seniors and Community Services Association: a non-profit charitable community services agency established since 1976, and funded by Ontario Ministry of Health. They provide a full range of social, health care, and support services for seniors in the Greater Toronto Area, so that they may enjoy independent, enriched and quality living in the community. According to their website, the association serve 6,500 clients a year, including seniors and physically disabled; 1,500 of whom are "home-bound" and frail.

Mount Sinai Wellness Centre: a Mount Sinai Hospital community program in partnership with Hong Fook Mental Health Association and the Yee Hong Centre for Geriatric Care, and administered by the Hospital’s Department of Psychiatry. The objective of the center is to address the mental health needs of ethno-cultural seniors with an emphasis on Wellness. The Centre is designed to meet the needs of the Chinese community for more efficient and timely access to the mental health system. It also offers an array of culturally and linguistically appropriate programs, including education, health promotion, traditional and western health care that serve as an interface to more individualized mental health services (Mount Sinai Hospital, 2010).

St. Paul's L'Amoreaux Centre: established in 1978 and provides a unique blend of housing and community services that ensure a continuum of care, supporting independent living for those in need of extra assistance and care. The center serves a multicultural clientele including a large population of Cantonese and Mandarin-speaking Chinese. Lastly,

Yee Hong Centre for Geriatric Care: a non-profit organization serving seniors in the Greater Toronto Area. Officially opened in October 1994, the Yee Hong Centre now operates four long-term care centres in Scarborough, Markham and Mississauga. A continuum of care services are offered to Chinese seniors. Since June 2004, Yee Hong has been operating a total of 805 long-term care beds and serving over 15,000 individuals from different ethnic communities on a daily basis in Greater Toronto and the surrounding areas. Thousands of seniors benefit from the Centre’s long-term care, senior housing, medical and rehabilitation services and community-based programs. One of the retirement housing associated with Yee Hong Centre is Garden Terrace.
Appendix C: Semi-structured interview guide

Demographic information
How old are you?
What year did you immigrated into Canada?
What is the highest form of education that you received?
Did you work? What kind of work?

Perception of general health status
Are you healthy?
Do you have any health conditions?
   Probes: Mobility, heart, respiratory, eyes, GI, diabetes, bones etc.
What kind of medications are you taking?
What do you think might keep you healthy?
What do you do to keep yourself healthy?
What kind of physical activities do you perform? How regularly?
How do you view life?

Particulars about the last fall
I would like you to think back to the last time you fell – describe what happened
   Probes: Where and how did you fall?
      Tell me what you think might have caused your fall
      What did you do right after you fell?
      Who did you call for help?

Feelings about the fall
Are you afraid or scared of falling? How did the fall affect how you feel about yourself? About life in general?
Can you compare how you feel about yourself now and before the fall? (confidence level?)
What do you think may keep you from falling again?
Tell me about your rehabilitation experience
   Tell me about the kind of support you got from people
      Who provided you with support? What kind of support?

Views about future falls
I would like to ask you about changes that happen in your life after the fall.
   Probes: How confident do you feel about walking indoors and outdoors/carrying out activities of daily living?
How likely do you think it is for you to fall again?
If you fall again – what would you do?

Social networks
Tell me about your family
   Probes: how many children/grandchildren? Relationship? What support do you get from them?
Tell me about your friends
   Probes: Where did you meet your friends (In place of origin or in Canada)? How often do you see them? What activities do you do together? Any of them had experiences of falling?
Do you feel connected with any other communities or organizations? How did they provide you with support after your fall?
Do you have faith and do you practise it? How does faith influence the way you view your fall?
Appendix D: Revised semi-structured interview guide (Original version and Chinese translation)

Demographic information
Please tell me about yourself
   Probes: age, immigration year, education, work history

Perception of general health status
How would you describe your current health status?
Please tell me about any health issues you are currently encountering.
What do you think might keep you healthy?
What do you do to keep yourself healthy?
What kind of physical activities do you perform? How regularly?
What is your philosophy on life in general? What attitudes do you take in your daily life? (Probe attitudes and psychological well-being)

Particulars about the last fall
I would like you to think back to the last time you fell – describe what happened
   Probes: Where and how did you fall?
       Tell me what you think might have caused your fall
       What did you do right after you fell?
       Who did you call for help?

Feelings about the fall
Tell me how you feel about falling?
   How did you react to the fall? How did the fall affect how you feel about yourself? About life in general? (Probe for fear of falling)
Can you compare how you feel about yourself now and before the fall? (confidence level?)
What do you think may keep you from falling again?
Tell me about your rehabilitation experience
   Tell me about the kind of support you got from people (Who provided you with support? What kind of support? Probe how active they are in dealing with the fall and the circle of support)

Views about future falls
I would like to ask you about changes that happen in your life after the fall.
   Probes: How confident do you feel about walking indoors and outdoors/carrying out activities of daily living?
How likely do you think it is for you to fall again?
If you fall again – what would you do?

Social networks
Tell me about your family
   Probes: how many children/grandchildren? Relationship? What support do you get from them?
Tell me about your friends
   Probes: Where did you meet your friends (In place of origin or in Canada)? How often do you see them? What activities do you do together? Any of them had experiences of falling?
Please tell me about any organizations or clubs or programs which you are associated with in the community? How did they provide you with support after your fall?
Please tell me about your faith and whether you practise it or not? How does faith influence the way you view your fall?
個人資料
請介紹自己。

年齡、移民年份、學歷、工作經驗

整體健康狀況
你會怎樣形容自己現在的健康狀況？
請告訴我，你現有的所有健康問題。
你認為怎樣才可保持健康呢？
你會做什麼來保持健康呢？
你會做什麼運動呢？一星期多少次？
你的人生哲理是什麼？面對日常生活，你抱着什麼態度？

最近一次跌倒的經過
請回想起最近一次跌倒，並仔細形容事發經過。
你在哪裡及如何跌倒？
你知道你跌倒的原因嗎？
你跌倒後如何即時反應及行動？
你找誰幫忙呢？

跌倒後的感想
請告訴我，你對自己跌倒的感想。
你跌倒後的反應及行動？跌倒後有否對自己改觀？對生命改觀？
請比較跌倒前後的自信程度。
你會做什麼來預防再次跌倒呢？
請告訴我，你的康復經驗。
什麼人給予你支援？什麼支援？
對將來再次跌倒的看法
請告訴我，你跌倒後，生活上起了什麼變化？
你在室內外行動有信心嗎？作日常起居飲食的活動有信心嗎？
你認為將來再次跌倒的機會大嗎？
若然你再次跌倒，你會怎樣做？

人際網絡
請描述你的家庭。
多少兒女及孫兒女？關係如何？他們給你什麼支持？
請描述你的朋友。
你怎樣認識你的朋友？你多數約你的朋友做什麼？他們有跌倒的經驗嗎？
你有否成為任何機構或會所的會員？你有參加它們舉辦的活動嗎？它們有否為你提供有關跌倒後的支援？什麼支援？
你有信仰嗎？你有否實踐自己的信仰？信仰有否影響你對跌倒的看法？