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Contextual Factors Influencing Dietary Practices of Chinese Canadian Seniors: Elderly
Chinese Canadians’ Perspectives

by

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Abstract

The dietary behaviours of elderly Chinese immigrants can be multidimensional, varying with cultural beliefs, acculturation, socioeconomic status, and other factors. Informed by the PRECEDE-PROCEED model and Kleinman’s explanatory models, the primary purpose of this qualitative study was to explore factors influencing Chinese Canadian seniors’ dietary practices. The ultimate goal is to increase the health care professionals’ awareness and understanding on how to provide culturally appropriate and effective health care that meet the elderly Chinese immigrants’ dietary needs.

In-depth interviews using a semi-structured questionnaire were conducted with 10 male and female Chinese Canadian seniors. The results of this study revealed that: (a) cultural beliefs and values played a major role in the Chinese elderly participants’ dietary practices; (b) family members, peers, as well as health care professionals and services greatly influenced the elderly participants’ dietary practices; and (c) the participants’ biological changes, psychological health, accessibility and availability of traditional Chinese foods, and financial issues significantly affected their dietary practices. Strategies were suggested to help provide appropriate and effective health education programs and consultation for the elderly Chinese immigrants.
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CHAPTER ONE: INTRODUCTION

In 2003, Canadians aged 65 years and over accounted for 13% of the total population, compared to 11% in 1991; this is projected to reach 15% by the year 2011 (Statistics Canada, 2005). The health issues of Canada’s seniors are of concern since this sector of the population has been growing faster than others (Statistics Canada). Adequate nutrient intake is crucial in maintaining the health of the elderly (Health Canada, 2001). Diet related diseases (e.g., diabetes, hypertension, arthritis) are common in the elderly population, which contribute to nutritional risk (Health Canada). On the other hand, good nutrition can reduce the risk of many chronic diseases prevalent among the elderly population (e.g., malnutrition, obesity, hypertension, heart disease, and mental illness) or at least improve the quality of life for those suffering with disease (Health Canada; Yen, 2003).

Background

With more and more people from ethnic groups choosing Canada as their new home, health care professionals in Canada need to be aware of the specific needs of the minority populations because they have distinct characteristics that are different from both the general population in host countries and their counterparts in their home countries. Among these minority populations, the elderly immigrants could potentially require more health considerations because they are in a particular context that varies with age, language barriers, dietary acculturation, socioeconomic status, health status, and specific cultural background (Hall & Brown, 2005; Kim, Yu, Liu, Kim, & Kohrs, 1993; Lai, 2004; Newman & Ludman, 1984; Ren & Chang, 1998; Satia et al., 2001; Yoho & Ezeobele, 2002). In particular, health care professionals need to pay attention to
Chinese Canadian seniors because the Chinese community is the biggest minority group in Canada, and has witnessed a continuing increase in its elders in recent years (Lai; Statistics Canada, 2001a).

Compared to their Caucasian counterparts, elderly Chinese Americans are at greater risk for some health issues, including liver and nasopharyngeal cancers (Yu, 1986), emotional problems, and poorer mental health (Ren & Chang, 1998). More depression and poorer mental health have also been found in Chinese Canadian elderly (Lai, 2000, 2004). Depression can lead to poor nutrition for seniors ("Growing older," 1996; Tsai et al., 2004), while inadequate dietary intake may result in compromised health, both physical and mental (Health Canada, 2001; Suriah, Chong, & Yeoh, 1998). Furthermore, compared to their counterparts living in their home countries, Chinese Americans have higher morbidity from diabetes and some forms of cancer (e.g., colon cancer, rectum cancer) due to consumption of more high-fat and low-fibre foods (Marchand, Wilkens, Kolonel, Hankin, & Lyu, 1997; Yu, Harris, Gao, Gao, & Wynder, 1991).

Although these specific health issues exist for elderly Chinese immigrants and dietary practices have a dominant role in these seniors’ nutrition, health and wellness, little research has been conducted among elderly Chinese immigrants concerning their dietary practices. Only two citations were found in the literature that addressed the dietary practices of elderly Chinese immigrants (Chau, Lee, Tseng, & Downes, 1990; Newman & Ludman, 1984). In addition, both studies were conducted over 15 years ago, with no recent studies focusing on this research field. Therefore, this study explored the essential information about factors influencing their dietary practices based on
understanding these seniors' descriptive expressions thus leading to development of culturally appropriate and effective health programs, policies, and research on Chinese Canadian seniors in the future.

Problem Statement

There is little systematic research that addresses factors influencing the dietary practices of Chinese Canadian seniors, even though it is known that many specific health issues occur within the Chinese elderly population. Moreover, dietary practices play a dominant role in these health issues. In a multidimensional context that includes gender, age, cultural belief, acculturation, educational level, socioeconomic status, and other factors, dietary practices may be significantly influenced. Understanding the contextual factors influencing the dietary practices of elderly Chinese immigrants could provide a basic foundation for health care policymakers, researchers, and health care professionals to design and improve culturally appropriate and effective health systems, programs, and services which may, in turn, further improve the health status of elderly Chinese immigrants.

Research Purpose

The purpose of this qualitative study was to explore from the perspective of Chinese Canadian seniors the influence of contextual factors (such as cultural, social, historical, economic, and political factors) on their dietary practices in order to increase the health care professionals' awareness and understanding regarding (1) what might be helpful in meeting Chinese Canadian seniors' diet needs, and (2) how to provide culturally appropriate and effective health care, including planning nutritional health promotion programs.
Significance of the Study for Nursing

This study has potential significance in three areas. At the practice level, the findings of this study would contribute to knowledge that may assist Registered Nurses (RNs) in understanding holistically the factors influencing dietary practices of Chinese Canadian seniors. The findings are also expected to give insights that will help RNs provide culturally appropriate and effective nutritional consultations to improve Chinese Canadian seniors' diets in both communities and health institutions. Furthermore, the findings may help the Canadian Nurses Association with updating the guidelines for RNs who work with elderly Chinese immigrants. At the educational level, the findings might provide useful information for the development of cultural competency among both RNs and nursing students. This includes the importance of gaining an understanding of how Chinese Canadian seniors' cultural beliefs and values shape their expectations of a healthy diet and determining factors in the context of their daily lives. Finally, this study will contribute toward the development of a research program in nursing. As an introduction to systematic research, the findings in this study will facilitate the development of longitudinal designs and qualitative research methodologies. It will incorporate investigating elderly Chinese immigrants with diverse backgrounds, such as different generations, socioeconomic status, and social support. Also, comparative studies may be conducted in order to explore the dietary issues among elderly immigrants from other ethnic backgrounds. Further studies will illuminate nursing knowledge and understanding within caring for older Chinese Canadian immigrants as well as for other older or aging immigrant people.
CHAPTER TWO: LITERATURE REVIEW

A two-step approach was used to gather research pertaining to the dietary practices of Chinese Canadian seniors. First, several online databases (Cumulative Index to Nursing and Allied Health Literature [CINAHL] from 1982, HealthSTAR from 1966, MEDLINE from 1966, and Anthropology Plus from 1993) as well as a website (www.scholar.google.com) were searched for research articles. The key words diet/food/nutrition, immigrant/Asian/Chinese, and senior/elder/old guided the initial search. As few references were found, the key terms ‘senior/elder/old’ were deleted, resulting in more studies. Because Canadian research on Chinese seniors’ dietary practices was limited, studies from the United States, the United Kingdom, and Australia were also included. English articles were included in this review. Although the term ‘senior’ was commonly used in the research, definitions of ‘senior’ varied across different studies and included those as young as 50 years of age. For this research study, ‘seniors’ were defined as those 65 years of age or older. This age group has some specific characteristics when discussing nutrition-related issues, including different nutritional problems, attitudes, and other issues (Health Canada, 2001). In addition, 60-64 years of age was the most popular range of retirement in Canada from 1991 to 2000 (Rathje, 2003). Therefore, considering people aged 65 or older as seniors is justifiable as retirement may bring differences in lifestyle, socioeconomic status, and daily activities, all of which may influence their dietary practices. The term ‘Chinese’ was also not defined clearly in the research studies; ‘Chinese’ referred to a very inclusive ethnic category not a national category, specifically including Chinese in mainland China, Hong Kong, and Taiwan who vary with languages and economic status. The majority of the
participants in the reviewed studies were in the host countries first-generation Chinese who had not married outside their ethnic group. In this study, the term “Chinese Canadian senior” was used to refer to seniors of Chinese background in Canada. Although they are genetically similar, there may be significantly linguistic, cultural, and socioeconomic differences among them.

Analysis of the literature suggested five main categories of contextual factors influencing health and dietary practices of Chinese Canadian seniors: aging, nutrition, and diet; traditional Chinese culture and dietary practices; dietary acculturation; dietary practices of North American Chinese immigrants; and contemporary health care availability for ethnic groups. A synthesis of key information in each of the categories is provided in subsequent sections.

**Aging, Nutrition, and Diet**

With aging, individuals become more likely to experience physical changes, chronic health issues, or other barriers, which may influence their dietary practices and nutritional intake. According to the reviewed studies, seniors face unique challenges in maintaining adequate nutrition, regardless of the mainstream or ethnic elderly population.

**Functional Impairments**

Functional impairments are a dominant influence on dietary practices and nutritional intake among the elderly population. With aging, functional impairments such as sensory change, cognitive loss, dental problems, and limited ability to prepare foods become common in the elderly and may consequently affect the quantity and quality of food consumed (Amella, 1998; Drewnowski & Shultz, 2001; Garcia & Johnson, 2003; Hall & Brown, 2005; Health Canada, 2001; Pierce, Sheehan, & Ferris, 2002; Porter,
2007; Stewart, Brochetti, Cox, & Clarke, 1998; Winter Falk, Bisogni, & Sobal, 1996). Of these functional impairments, inconvenience stands out as a main issue when assessing their limited ability to prepare foods (Drewnowski & Shultz; Pierce et al.; Porter; Winter Falk et al.). For example, physical problems for seniors can lead to difficulties in carrying out food-related activities such as grocery shopping and cooking. Diminished abilities to access, prepare, or eat foods because of aging is another salient variable. Chronic medical conditions (e.g., hypertension and diabetes) also impact seniors’ diets and may require specific dietary modifications. Medications prescribed to the elderly may alter dietary practices or appetite (Amella; Wellman, 1999). In particular, the above factors as a group may influence seniors’ dietary practices. For example, medication, physical and psychological problems, and sensory change can result in a lack or loss of appetite among the elderly (Health Canada).

Social Isolation

Social isolation is common in the elderly population because of the loss of their spouses, friends, and close family members, resulting in living alone, eating alone, and lack of social support. In addition, social isolation is a high risk significantly influencing the dietary practices and nutritional intake of the elderly, both in the mainstream Caucasian seniors (Browne et al., 1997; Davis, Murphy, Neuhaus, & Lein, 1990; Drewnowski & Shultz, 2001; Hall & Brown, 2005; Gustafsson & Sidenvall, 2002) and in the ethnic elderly (Cheng, 1997; Garcia & Johnson, 2003; Netland & Brownstein, 1984). Compared with Caucasian seniors, elderly Chinese immigrants face more social isolation because they tend to be detached from both the host society and their families (Cheng). Depression and weight loss can be found in elderly people experiencing social isolation,
especially women ("Growing older," 1996). Eating alone and living alone frequently was noted as a nutritional risk factor in the elderly population (Browne et al.; Garcia & Johnson). A survey involving 4,402 elderly Americans found that seniors living with their spouses have a higher quality of dietary intake than their counterparts living alone (Davis et al.). The study also found that a poor nutritional diet results from decreased consumption of foods more than poor-quality foods. Two other studies further revealed why social isolation may result in a poor diet among Caucasian seniors. For example, for many female elderly Caucasians, cooking is an obligation they prefer to skip when living alone (Gustafsson & Sidenvall; Winter Falk et al., 1996). In contrast, male Caucasian seniors often lack the necessary cooking skills and are therefore faced with this new challenge when alone (Winter Falk et al.). From the findings of these two studies, the relationship between social isolation and dietary practices would likely apply to Chinese Canadian seniors as well.

**Socioeconomic Status**

Although financial issues can be a risk factor influencing nutrition and health among all populations, the elderly are more susceptible due to lower income, increased expenses in health care, food, shelter, and other necessities (Hall & Brown, 2005). Therefore, socioeconomic status is another significant factor affecting seniors’ dietary practices, including mainstream and minority groups (Davis et al., 1990; Drewnowski & Shultz, 2001; Garcia & Johnson, 2003; Hall & Brown; Pierce et al., 2002; Winter Falk et al., 1996; Yen, 2004). Poor socioeconomic status is a dominant nutritional risk among the elderly population. One major barrier to healthy eating is insufficient money, thus impeding the purchase of fresh as well as high-quality foods, contributing to nutritional
risk (Garcia & Johnson; Hall & Brown; Pierce et al.; Winter Falk et al.). Forty percent of community-dwelling elderly Americans lack sufficient nutrient intake, largely due to poverty (Yen). Furthermore, financial insufficiency delays seniors' medical or dental treatments because some costs may not be covered in their health insurance plans (Foundation for Health in Aging, 2005), which may result in even poorer nutrition status ("Growing older," 1996). In particular, newly arrived elderly immigrants may have more financial issues since they are not eligible for government health care funds and social benefits before they become citizens in host countries (Gorospe, 2006). In addition, single female seniors are concerned the most about the expense of foods as compared to other population groups (Drewnowski & Shultz). The female elderly population living alone, irrespective of ethnicity, may therefore have more economic problems, experience more social isolation, and have fewer regular healthy meals than their male counterparts. Female elderly Chinese also consider their financial issues relevant when purchasing foods (Satia, Patterson, Kristal, Teh, & Tu, 2002).

Beliefs

Cultural beliefs significantly influence food choices among the elderly, and many seniors believe that it is essential to have culturally congruent foods in order to keep health (Rux, 1981). These beliefs are a result of their lived experiences (Rainey, Mayo, Haley-Zitlin, Kemper, & Cason, 2000; Winter Falk et al., 1996), traditional culture (Chau et al., 1990; Newman & Ludman, 1984; Satia et al., 2001), and personal preferences (De Almeida, Graça, Afonso, Kearney, & Gibney, 2001; Stewart et al., 1998). Findings of Winter Falk et al. suggested that elderly people tend to retain their childhood dietary preferences. De Almeida et al. also found that most elderly participants believe their diets
are healthy and need no improvement. This belief may make it more difficult for health
care professionals as they attempt to introduce healthy changes in seniors’ dietary
practices. Furthermore, Satia et al. reported that traditional Chinese cultural beliefs may
significantly affect the dietary practices of elderly Chinese immigrants, compared with
their younger counterparts. This discussion is developed further in the following section.

Traditional Chinese Culture and Dietary Practices

Food has a significant place in Chinese culture and has a close relationship with
people’s health which results in Chinese keeping traditional dietary practices even in host
countries (Diehl, Waters, & Thiel, 1998). Many Chinese immigrants still follow
traditional Chinese concepts to guide dietary practices (Diehl et al.; Newman & Ludman,
1984). Compared with younger Chinese immigrants, elderly Chinese immigrants depend
more on the traditional culture (Satia et al., 2001). Therefore, in order to promote healthy
dietary practices in Chinese Canadian seniors, it is essential to further understand the
influence of Chinese culture on diet. Chinese culture is one of the oldest and most diverse
cultures in the world and is influenced by several philosophies, such as Yin and Yang,
Taoism, Buddhism, Confucianism, Legalism, and Mohism (Rodgers & Yen, 2002). Many
philosophies guide the Chinese in daily dietary practices, and in this paper Yin and Yang,
Taoism, Buddhism, and Confucianism are mostly addressed (Chen, 2001). How these
philosophies relate to dietary practices is provided below.

Yin and Yang

Yin and Yang is the most prevalent philosophy in Chinese culture, having a close
relationship with Chinese dietary practices (Shih, 1996). In Chinese culture, yin means
feminine and yang means masculine. The Yin and Yang philosophy suggests that all
phenomena appear as pairs of opposites that are interdependent and harmonious (e.g., hot and cold, dark and light). Shih puts forth, "Yin and yang are the fundamental categories of all phenomena. They are divisible and interdependent. . . . Illness is the disharmony of yin and yang" (p. 210). The principles of Yin and Yang are widely applied by the Chinese. There are several principles essential to Yin and Yang that relate to dietary practices.

First, the Yin and Yang philosophy values diet as a means to healthy living and also advocates for dietary modifications, especially during illness (Koo, 1984; Shih, 1996; Suzanne & Chan, 1985). Prescriptive and proscriptive rules of diet are well known within middle-aged Chinese women (Koo). Prescriptive rules refer to eating certain foods to improve poor physical status caused by inadequate nutrients during illness. In contrast, proscriptive rules recommend avoiding certain foods when people are sick (Koo). Therefore, eating calcium-rich foods is prevalent in China when people break their bones, while people with cancer would be told to avoid drinking alcohol (Koo). In Western medicine, there are few food rules in treating diseases with a few exceptions (e.g., diabetes), with health care professionals tending to use the proscriptive rule rather than the prescriptive one (Koo).

Second, there are two essential principles in dietary therapy in terms of the Yin and Yang philosophy: 'like helps like' and 'using poison to fight poison' (Koo, 1984). For example, the Chinese tend to believe that consumption of walnuts helps nourish the brain because a walnut resembles a brain, while scorpions are eaten for their 'anti-poison' properties.
Finally, foods and herbs are divided into 'hot,' 'cold,' and 'tonic,' rather than Western terms like 'calcium-rich' or 'vitamin-rich' foods (Koo, 1984; Shih, 1996). Maintaining the balance of hot and cold is considered vital to healthy Chinese life (Chan, 1995; Koo). For example, during pregnancy, considered to be a hot status, women are encouraged to avoid hot foods such as fried and spicy foods (Chan). In contrast, postpartum women considered in a 'cold' status are told not to eat 'cold' foods such as pear and watermelon (Suzanne & Chan, 1985).

Taoism (Daoism)

Taoism (Daoism), the only indigenous religion in modern China, influences Chinese people's lives significantly, including basic principles such as worship of nature, striving for inner purity, and the control of personal desire (Wang, 2006). Schipper (1993) explains, "The first meaning of the character tao is 'way': something underlying the change and transformation of all beings, the spontaneous process regulating the natural cycle of the universe" (p. 3). Shih (1996) also summarizes, "The Taoist view of nature follows cyclical changes: birth and death, the onset of seasons, the rhythm of night and day, and the waxing and waning of the moon" (p. 211). Nonaction (wuwei) and naturalness (ziran) are addressed in Taoism (Kohn, 2001). In other words, following Taoism, the Chinese prefer to adapt to their environments instead of changing the environments. For example, in terms of the Taoist philosophy, elderly Chinese patients believe that they will recover spontaneously when their bad luck goes away (Shih). In particular, the principles of "treatment before illness" and "consolidating life foundation" in Taoism are commonly used in Chinese medicine (Wang). With respect to diet, there are several diet principles in Taoism. First, there are special foods required in different
festivals, such as eating moon cakes on the Fifteenth of the Eighth (i.e., Mid-Autumn Festival) (Schipper). Second, simplicity is addressed in Taoism. Kohn explains, “Simplicity is expressed . . . as a physical restraint on accumulating too many things, abstention from eating rich and fancy foods, and generally a tendency to keep one’s circumstances limited to what one really needs” (p. 23). In other words, fancy and tasty foods should be limited in daily life. Finally, Taoism emphasizes moderation and flexibility. Taoism addresses a balanced diet in life, which is similar to Yin and Yang. Different from Yin and Yang, which categorizes foods into ‘hot’ and ‘cold’, Taoism classifies foods into ‘five flavours’ (i.e., bitter, sour, sweet, spicy, and salty) (The Great Tao, 2004). In addition, flexibility is also addressed in Taoism and there are very few diet prohibitions (e.g., alcohol is permitted) (Kohn). Festivals therefore provide opportunities to eat a lot of rich food and drink alcohol (Schipper).

Buddhism

A third philosophy within the Chinese culture is Buddhism. Shih (1996) points out, “The Buddhist teaching echoes the adherence to natural changes by preaching the impermanence of the world, the emptiness of life and the transience of all objects” (p. 211). In other words, Buddhists believe that life is a process involving the end of suffering and the search for enlightenment (Brooks, 2004). There are four noble truths in Buddhism: “Suffering, concept of re-birth with suffering, correcting faults through meditation, and following the true spiritual path” (Brooks, p. 15). In particular, Buddhists believe in Fate and ‘Inn’ and ‘Ko’ (cause and effect), and being a good person is addressed significantly (Chen, 2001). Therefore, out of respect for life and for all living
things, and in order to achieve a higher standing in the next life, most Chinese Buddhists are vegetarian. They do not kill animals or eat meat.

*Confucianism*

There are two main principles in Confucianism: generational hierarchy (paternalism) and gender hierarchy (masculinism). The former principle means that “the elders have more authority than the young, the parents have more authority than the children, [and] the teachers have more authority than the students” (Cheng, 1997, p. 39). Health care professionals are also in a position of authority according to the Confucian philosophy. Thus, elderly Chinese clients who follow Confucianism may feel too humble to discuss their dietary issues with health care professionals. The latter principle means that a Chinese father and husband would have more power compared to a Chinese mother and wife (Cheng). It may be possible for Chinese senior women often follow their husbands’ or eldest sons’ decisions rather than making their own decisions because of the influences of the Confucian philosophy. In dietary practices, Chinese women often follow the food choices of their husbands, children, and elder relatives when preparing meals (Lv & Cason, 2003; Satia et al., 2000, 2002; Wolf, 1970).

It is important to note that although traditional Chinese culture plays an integral part in the Chinese diet, it varies with different demographic locations. Kittler and Sucher (2004) reported, “The influence of ancient spiritual and magical beliefs is minimal in mainland China, more often found in other regions, such as Hong Kong and Taiwan” (p. 265). In addition, the people within the same ethnic group may share similar health attitudes and beliefs. Traditionally, the Chinese would seek Chinese medicine for mild physical problems (e.g., cold and chronic diseases), while they would prefer Western
medicine for emergency or serious conditions (Holroyd, 2002; Ren & Chang, 1998).
However, similar to acculturation, these traditional beliefs vary due to other factors including age, socioeconomic status, and educational level (Satia et al., 2001, 2002).

I considered cultural influences among Chinese Canadian seniors’ dietary practices in my research and tried to find the answer by asking questions such as “What kind of cultural beliefs influence what you eat?” and “How do you think about different diet characteristics varying in different locations in China?”

Dietary Acculturation

Compared with the mainstream elderly population in Canada, Chinese Canadian seniors face a specific challenge in their dietary practices—dietary acculturation. To explore how acculturation affects the dietary practices of Chinese Canadian seniors, it would be helpful to begin with an overview of the characteristics of acculturation.

Definition of Acculturation

Redfield, Linton, and Herskovits (1936) purport that, “Acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups” (p. 149). Berry (1980) conceptualizes the acculturation strategies in terms of the bidimensional model of acculturation. Losing behaviours and values specific to a minority culture and/or gaining behaviours and values of the host culture can result in four possible outcomes as shown in Figure 1: acculturation (assimilation), bi-culture (integration), tradition, and marginalization (Landrine & Klonoff, 2004, p. 528).
Figure 1. Bidimensional Model of Acculturation

<table>
<thead>
<tr>
<th>Lose Indigenous Culture</th>
<th>Gain Anglo Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Acculturated</td>
<td>Bi-cultural</td>
</tr>
<tr>
<td>No</td>
<td>Marginalized</td>
</tr>
</tbody>
</table>

In detail, Landrine and Klonoff (2004) explain the outcomes as follows: (1) When members of ethnic groups adopt the host culture totally and do not maintain their original culture anymore, acculturation occurs, (2) if there is an interest in both host culture and traditional culture, bi-culture emerges, (3) keeping their traditional identity and avoiding interaction with the host culture is defined as tradition, and (4) marginalization is the option when there is no interest in either host culture or original culture.

Although the specific acculturation strategies are summarized clearly in this model, it fails to demonstrate that acculturation is a dynamic process and can shift from one outcome to another depending on other factors (e.g., age, educational level, and gender). In other words, these four acculturation categories should not be considered mutually exclusive, and ethnic populations can switch among these categories when they are influenced by both personal and environmental factors. For example, in terms of this model, it is difficult to explain the findings of Newman and Linke (1982) in which the
participants living in the United States over five years reverted back to their traditional dietary patterns.

In addition, Berry (1997) indicates, "In the case of [m]arginalisation, people rarely choose such an option" (p. 10). Based on this assumption, 'marginalization' is not considered in this study. Meanwhile, Berry (1980) changes bi-culture into integration, which "implies the maintenance of cultural integrity as well as the movement to become an integral part of a larger societal framework" (p. 13). I agree with Berry (1980) because integration more appropriately embodies the process of involvement between host dietary practices and traditional dietary practices. On the other hand, Berry (1980) insists, "Acculturation is not only assimilation" (p. 22). In other words, assimilation is just one kind of acculturation strategy. Therefore, in order to avoid confusion of terms, I prefer 'assimilation' to 'acculturation' when considering the option of adopting the host culture totally and no longer maintaining the cultural identity.

According to Berry (1997), the phenomenon of acculturation acts at two levels: the micro level and the macro level.

**The micro level.** At the micro level, it can affect individuals' eating patterns, behaviours, and attitudes. For example, many Chinese immigrants prefer a Western breakfast (Chau et al., 1990; Satia et al., 2000). Acculturation can also result in changes in individuals' values. For instance, the traditional extended Chinese families begin to break down as the young Chinese Americans would like to choose a nuclear family structure which is typical of the American family (Cheng, 1997).

**The macro level.** At the macro level, acculturation brings changes of policies. Berry (1997) summarizes that health policies in host countries also have four possible
approaches because of acculturation: assimilation, separation, integration, and marginalization. (Detailed discussion is in the Contemporary Health Care Availability for Ethnic Groups section.)

*Research implication.* Different acculturation categories were explored in this study by interviewing the Chinese elderly participants about their dietary practices, such as asking the question of "What would be a typical breakfast/lunch/supper for you?"

*Dietary Acculturation*

As a subcategory of acculturation, dietary acculturation is defined as the process by which minority groups adopt the food choices/patterns of the host country (Satia et al., 2001). Based on the literature review, the phenomenon of dietary acculturation occurs across several categories: choosing Western foods (e.g., cheese, butter, and bacon), rejecting traditional foods (e.g., eating a sandwich for lunch instead of having a traditional Chinese meal), and choosing new cooking methods (e.g., preparing salad rather than a cooked dish). Dietary acculturation among Chinese immigrants may be characterized by increased consumption of meats and dairy products and decreased consumption of grains. Eating Western food (e.g., bread and milk) as a breakfast is another common dietary acculturation. Finally, dietary acculturation is multidimensional, affected by factors such as age, length of residency, gender, and educational level (Berry, 1997; Chau et al., 1990; Satia et al., 2000).

*Age.* Age plays an integral role in acculturation. The younger the person entering the host country, the smoother the process of acculturation (Berry, 1997). Older Chinese immigrants were also found to keep a traditional diet more readily than younger ones (Satia et al., 2002). Simultaneously, younger Chinese immigrants were more willing to
acculturate than older ones (Satia et al.). Although it is not clear why age influences the process of acculturation (Berry), some studies might reveal important clues. For example, in a study conducted by Netland and Brownstein (1984), elderly American immigrants preferred speaking their native tongue instead of English, with language barriers being a possible reason. In addition, language and diet are two significant features that they would like to keep traditional. According to the study above, language barriers, instead of age, may be a significant factor influencing dietary acculturation, with language barriers more common in elderly immigrants.

*Research implication.* In this research study, this assumption was examined by asking the following questions during the interview: “How do you think not knowing English might influence Chinese immigrants to choose their favourite food?” and “How do you think age might influence Chinese immigrants to choose their favourite food?”

*Length of residency.* Length of residency is a factor commonly used when evaluating the degree of acculturation (Lv & Cason, 2003; Newman & Linke, 1982). However, current studies are inconclusive regarding the relationship between length of residency and dietary acculturation. For example, Newman and Linke state that participants living in the U.S. over five years have fewer changes in food habits than those living in the U.S. less than five years. In comparison, Lv and Cason reported that there is no significant relationship between the length of time living in the U.S. and dietary patterns. This may be due to the differences in time (1982 vs. 2003), with the availability of ethnic foods likely changing over these years.

*Gender.* Gender is another important aspect. Women are more often recruited as participants when investigating Chinese immigrants’ nutrition and diet because they are
considered to generally be the gatekeepers of foods and food preparation (Newman & Linke, 1982; Satia et al., 2000, 2001, 2002). As a result, Chinese immigrant women tend to be much more aware of the availability (or lack, thereof) of traditional Chinese food products in the host country (Newman & Ludman, 1984). Also, Chinese senior women have decreased health status (Lai, 2004; Kim et al., 1993; Suriah et al., 1998), less English ability, and poorer financial support than male Chinese seniors in the host country (Lai). Most of these issues may result in a decreased ability to acculturate.

**Research implication.** This research examined the effect of gender on dietary practices among Chinese seniors based on interviews with both female and male elderly Chinese. Thus, the question “Do you prepare or eat different food than your husband/wife?” was asked in the interviews.

**Education.** Education may also influence dietary beliefs and the process of acculturation. Suzanne and Chan (1985) found that Chinese participants with lower educational status hold more traditional dietary beliefs than those with higher education. Satia et al. (2002) also reported that Chinese immigrants with a higher level of education pay less attention to traditional beliefs about diet. Furthermore, level of education is considered to be directly linked to other factors influencing dietary practices such as socioeconomic status and employment status (Berry, 1997). Although Berry states, “It [education] is a kind of pre-acclimation to the language . . . of the new culture” (p. 22), the relationship between education and fluency of the host language is unclear.

**Research implication.** The effects of educational level and fluency of the host language were explored from the Chinese seniors’ perspective by asking “How do you think having a different educational background might influence Chinese immigrants in
regarding to choosing food?” and “How do you think not knowing English might influence Chinese immigrants to choose their favourite food?” In addition, information on educational level and English proficiency was obtained when asking their socio-demographic information in the interviews.

*Cultural distance.* Cultural distance needs to be considered as well when exploring dietary acculturation. Berry (1997) indicates, “Cultural distance (how dissimilar the two cultures are in language, religion etc.), too, lies not uniquely in the background of the acculturating individual but in the dissimilarity between the two cultures in contact” (p. 23). For example, the Chinese immigrants in Eastern countries (e.g., Singapore, Indonesia, and Thailand) experience less cultural conflict than their counterparts in North America (Berry). In addition, cultural distance may vary in different periods. For instance, in North America, the Chinese who immigrated in recent years may possibly have less cultural conflict than those who immigrated 20 years ago because Western cultural beliefs have become more prevalent in China in recent years, and the majority of Chinese immigrants have some degree of familiarity with these Western beliefs before relocating to Western countries. In other words, the cultural distance among Chinese immigrants has been less in recent years. Yu (1991) supported the assumption above: “In . . . Taiwan . . . Hong Kong . . . the ‘typical’ Asian diet [today] may already be an amalgamation of Asian and selected Western food items, especially in the educated and affluent segment of the society” (p. 1392).

*Social environment.* Social environmental variables relevant to immigrants’ dietary practices and acculturation include the availability and accessibility of ethnic foods, the development of ethnic communities, and health policies and programs
particular to ethnic group differences. For instance, current health care services (e.g., Calgary Health Region) can play a significant role by providing Canada's Food Guide in different languages and also supplying information regarding the characteristics of minority groups.

Dietary acculturation is changeable and not a simple one-way process. Dietary practices can incorporate both traditional and acculturated. For example, individuals living in the U.S. over five years were found to revert to traditional dietary patterns (Newman & Linke, 1982). Dietary acculturation can also bring both healthy and unhealthy dietary change. Chinese women with higher Western dietary acculturation scores were found to consume more high-fat foods (Satia et al., 2001). However, a healthy change was also observed with these same women eating more fruit and vegetables. Finally, dietary acculturation reveals the interconnectedness of personal and ethnic preference with environmental conditions. For example, the fact that it is time-consuming and expensive to prepare traditional Chinese food in Canada is a main reason for Chinese immigrants preferring Western food, plus Western food is, in comparison, cheaper and more readily available (Satia et al., 2000).

**Dietary Practices of North American Chinese Immigrants**

A limited number of research studies explored the dietary practices of Chinese Canadian seniors even though it is known that many specific health issues occur within this population. A systematic review and analysis of research studies related to the dietary practices of Chinese immigrants in North America potentially offers a valid and reliable knowledge base from which to conduct further research on the health of the Chinese elderly population in Canada.
One relevant research study examined the changes in food habits of 102 Chinese American women in terms of location and length of residency (Newman & Linke, 1982). Respondents living in New York City's Chinatown changed their food habits less than those living in Queens. The Newman and Linke study, one of the earliest references found to explore food habits among North American Chinese immigrants, provides important information regarding factors influencing dietary status, such as increased consumption of meats and dairy products. However, the majority of participants in this study were middle-aged women who may not accurately reflect the specific nutritional status of Chinese elderly women because of potential differences in physical status, socioeconomic status, educational level, and cultural beliefs. Therefore, further research to investigate the dietary practices of elderly Chinese immigrants needs to be conducted.

In another study, Newman and Ludman (1984) distributed questionnaires to Chinese adults living in Beijing, Shanghai, and Guangzhou in the People's Republic of China (P.R.C.) and in New York City. The return rate was most impressive, with 90% of usable questionnaires completed (337 participants) and almost half of the participants being 50 years of age or older. Several significant results were found: (1) Most participants followed traditional Chinese dietary habits in both countries, (2) there was no difficulty in obtaining the necessary foods in the U.S., (3) soup was the most common beverage consumed during meals in both countries, (4) participants in the U.S. ate alone more often than those in the P.R.C., (5) participants in the P.R.C. prepared more dishes for each meal than those in the U.S., and (6) most participants prepared special foods for seniors in both countries, with higher-protein foods being the first choice. This study provided some detailed quantitative information about the dietary practices of the
Chinese elderly. However, what is missing is rich qualitative data that might provide descriptive information about dietary practices from the Chinese seniors’ perspective. Understanding the complexities of dietary practices would potentially help modify and refine current health policies, health practices, and programs relating to the Chinese elderly population’s nutrition, health, and wellness in order to offer better quality care. Meanwhile, the changes that have occurred over the last 20 years should be considered.

Comparably, Chau et al. (1990) examined the dietary practices of 45 elderly female Chinese over 60 years of age living in the San Francisco Bay area. Using an interviewer-administered questionnaire, the researchers gathered information regarding the food habits, food frequency, food accessibility, and health beliefs of these elderly women. They obtained results similar to those of Newman and Ludman (1984). In addition, Chau et al. found that there was a significant positive correlation between subjects’ consumption of American food and their English reading level.

In another study, the dietary practices of 399 first-generation Chinese Americans in Pennsylvania (over 18 years of age) were explored through a self-administered questionnaire (Lv & Cason, 2003). The participants with better English proficiency consumed more fruits and beverages than others, while those with a higher number of Caucasian friends consumed more meats, fats/sweets, and beverages. Although this research does not specifically address the dietary practices of Chinese seniors, two specific acculturation indicators (English proficiency and number of non-immigrant American friends) were investigated. This suggests a potentially significant relationship between Chinese seniors’ dietary change and their degree of acculturation.
The Chinese Women's Health Project (Satia et al., 2000, 2001, 2002) offers another crucial beginning for systematic research on dietary practices, nutrition, and health among Chinese immigrants, as well as factors influencing Chinese women's dietary practices. Since Chinese women often prepare foods for the whole family, Satia et al.'s (2000) pilot study used qualitative research methods to explore information related to the dietary practices of 30 female Chinese Americans living in Seattle. Research results indicated: (1) Breakfast is the first meal to reflect changes after immigration with convenience being the main reason, (2) few participants access Western media or health programs to obtain dietary information, and (3) health beliefs, costs, food quality, and availability are important factors influencing food choices after immigration. In another study exploring the dietary practices of 244 Chinese women (mean age of 52.4 ± 14.3 years) living in Seattle, the U.S. and Vancouver, Canada, Satia et al. (2001) found that most participants are incorporating some Western dietary practices. Women with higher Western dietary acculturation scores are generally younger, have a higher educational level, are employed outside the home, and consume more higher-fat foods as well as fruits and vegetables as compared to those with lower acculturation scores.

Building upon the other two previously mentioned studies, Satia et al. (2002) obtained information on the psychosocial predictors of diet and acculturation among 244 Chinese women using the PRECEDE-PROCEED model. The PRECEDE-PROCEED model was developed by Green, Kreuter, Deeds, and Partridge (1980), and provides a framework for guiding the appropriate use of intervention strategies. Using this model, Satia et al. found that older and less-educated Chinese women do not believe that a relationship exists between diet and chronic disease, but do believe that the Chinese diet
is healthier than the Western diet. In addition, these women experienced more difficulty in accessing Chinese food stores and in affording fresh foods compared with their younger and higher-educated counterparts. The participants stated that their older Chinese relatives prefer a traditional Chinese diet, with over 50% of the elderly influencing the family eating patterns, resulting in consumption of a more traditional Chinese diet.

Although the majority of the participants in Satia et al.'s (2000, 2001, 2002) studies are middle-aged Chinese women with dietary practices that may not represent all elderly Chinese immigrants, this research provides fundamental information about contextual factors affecting the dietary practices of Chinese immigrants. In addition, the authors systematically analyzed these factors according to the PRECEDE-PROCEED model in order to better understand effects. Finally, the instruments and questionnaires developed in these studies (e.g., Dietary Acculturation Scale Instrument and Fat-Related Food Habit Questionnaire) could be useful when conducting related research or developing health promotion programs for Chinese immigrants.

There are also a number of significant anthropology research studies that address specific dietary behaviours and the factors influencing the dietary behaviours among Chinese seniors in North America. Lew-ting (1997) conducted a research study comparing egg-consumption behaviours among Chinese elderly of retirement homes in Los Angeles, the U.S. and Taipei, Taiwan. There were 203 Chinese seniors participating in this research, 89 in Taipei and 114 in Los Angeles. Both males and females participated, with a mean age of 76 years. The research results revealed that many participants in both locations had egg-restriction at some level. In addition, health care
professionals, family members, peer groups, and mass media were significant in influencing practices of egg-consumption among these Chinese elderly participants. Although the research investigated only egg-restrictive behaviours among Chinese elderly rather than exploring their complete dietary practices, the factors discussed may be relevant for further research as well.

Similarly, Liou and Contento (2006) explored the psychosocial predictors of fat-related dietary behaviours in first- and second-generation Chinese Americans in New York City. This study involved participants completing a questionnaire, with 743 useable surveys being returned, comprising a 55% response rate. The participants ranged from 21 to 73 years of age. The results of this study indicated: (1) The major predictors of dietary fat reduction among the participants include attitude, perceived barriers, self-efficacy, and overall health concerns, (2) older participants have higher frequencies of dietary fat-reduction practices in the first-generation group and that may be because they have more health concerns than the younger ones, and (3) male participants express that they have higher preferences for high-fat foods and have more difficulty reducing fat in their diets, compared with female counterparts.

Based on reviewing the current research studies on Chinese immigrants’ dietary practices, questions such as “Do you usually have either a Chinese diet or a Western diet in your daily life?” “Why do you prefer a Chinese/Western diet?” and “Are there any different things influencing your diet between past and present?” were considered as the probing questions in this research.
Contemporary Health Care Availability for Ethnic Groups

According to Berry (1997), acculturation affects health policies at the macro level. In detail, Berry explains:

Some are clearly assimilationist, expecting all immigrant and ethnocultural groups to become like those in the dominant society; others are integrationist, willing (even pleased) to accept and incorporate all groups to a large extent on their own cultural terms; yet others have pursued segregationist policies; and others have sought the marginalisation of unwanted groups. (p. 11)

In recent years, more and more Western health care professionals realize the inadequacy of health programs within a Western culture when attempting to address the health concerns of an increasingly diverse ethnic population. Sekhon (1996) reviewed the food and nutrition values of the South Asian population in North America and effective strategies used in counselling South Asian clients, including dietary information that could be suitable to Chinese immigrants. Brown (2003) also reviewed meal-planning strategies used in ethnic populations, addressing the importance of health care professionals’ cultural competency when communicating with ethnic clients. Browne et al. (1997) explored seniors’ nutritional risk factors from health care professionals’ perspective. Among the six major risk factors for malnutrition (i.e., living alone, recent bereavement, denture problems, mobility problems, psychiatric morbidity, and multiple medication use), they identified psychiatric morbidity as most important. In addition, the researchers found inconsistent understanding between general practitioners and public health nurses regarding these major risk factors. This suggests that there may be a greater difference in understanding between health care professionals and their elderly clients.
regarding what constitutes a healthy diet. This may result in ineffective dietary health consultations. The findings of McKie, MacInnes, Hendry, Donald, and Peace (2000) supported this claim: “Changing and conflicting advice on health and nutrition was contrasted with personal experiences” (p. 173). The authors stated that consistency in dietary and health promotion needs to be considered.

In order to explore the seniors’ understanding of current nutritional consultations from health care professionals (which could be significant in helping provide culturally appropriate and effective consultations), the probing questions, “Is it difficult for you to get the information related to healthy diet from health care services (i.e., physicians, public nurses, and health care providers), and why?” and “What would be the best possible way for us (e.g., health care providers) to help you get the information related to healthy diet?” were asked when interviewing the participants.

To promote the nutritional health of Canadians, Canada’s Food Guide (see Figure 2) was designed as a healthy dietary guideline (Health Canada, 2007). Different from the Food Guide Pyramid in the United States, Canada’s Food Guide is presented as a rainbow, and there are no groups at the top or the bottom. Canada’s Food Guide consists of four parts (from outer to inner): vegetables and fruit (4-10 servings), grain products (3-8 servings), milk and alternatives (2-4 servings), and meat and alternatives (1-3 servings). According to Canada’s Food Guide, people need foods from all four groups; however, the amount of food from each group varies. For example, the number of servings of vegetables and fruit is more than others.

Compared with the Food Guide Pyramid in the United States (see Figure 3), which is also a prevalent eating pattern around the world, several differences can be
found. Firstly, there is a different pattern. Using a pyramid, the Food Guide Pyramid categorizes different foods into different levels, ranging from the bottom to the top: bread and cereal group, vegetable group/fruit group, milk group/meat group, and fats and oils. Moreover, fats and sugars are represented in all the different groups. Similar to Canada’s Food Guide, the Food Guide Pyramid also guides the daily selection of foods, and no one food group is more significant than the other. However, the pyramid pattern may create some confusion, with those foods at the bottom being essential in the daily diet and those at the top not needing to be consumed every day. For example, the Asian Food Guide Pyramid (see Figure 4) can be used to support this assumption, suggesting that people eat meat monthly while eating grain products daily. Secondly, Canada’s Food Guide mentions consumption of ‘other foods’ which do not belong to the four food groups and which should be consumed in moderation. The Food Guide Pyramid makes no such mention and complicates the design by placing fat and sugars among all food groups. Comparably, Canada’s Food Guide is simpler, clearer, and more flexible. It has been tailored many times in order to meet people’s nutrient needs and promote a healthy life. It also provides specific guidance regarding the particular characteristics of different populations, including children, pregnant women, and seniors (Health Canada, 2007).

Canada’s Food Guide has been adapted in an attempt to better meet the needs of minorities such as the Chinese, Portuguese, East Indian, and Vietnamese populations (Nutrition Research Centre, n.d.). Unfortunately, the contemporary modifications of Canada’s Food Guide may be insufficient in guiding ethnic seniors to achieve a healthy diet. For example, when introducing grain products, only rice and the Hong Kong style bun are shown as examples in the Chinese adaptation (see Figure 5), while other
traditional favourites are not mentioned at all (e.g., noodles, dumplings, and steamed buns). In addition, the traditional Chinese diet has ‘fan’ (i.e., cooked grain products or starch portion) and ‘ts’ai’ (i.e., vegetables and meat consumed in mixed dishes), and people share ts’ai together (Simoons, 1991). Therefore, calculating the exact number of food servings per person would be difficult when attempting to measure the Chinese diet (Satia et al., 2001).

Another major health service issue is that elderly Chinese immigrants seldom access support from health care services. Ying and Miller (1992) reported that Chinese seniors in the U.S. seldom use the health care system, and language barriers may be an important reason, compared to younger Chinese. Instead, they tend to obtain health information from Chinese newspapers as well as their friends (Satia et al., 2000). Therefore, developing a systematic, dynamic, and culturally appropriate health care support system that reaches out to the Chinese elderly population is crucial in Canada.

**Summary of Literature Review**

Dietary practices of elderly Chinese immigrants are specific, varying with contextual factors such as educational background, socioeconomic status, living arrangement, and cultural beliefs. Most current research studies focus on epidemiological analysis of dietary practices in the young and middle aged, with limited discussion of specific factors influencing seniors’ dietary practices. Although some research addresses differences in food choices among the Chinese elderly varying with age, education, acculturation, and other factors, the dissemination of this information to health care professionals is limited. Consequently, two main knowledge gaps exist. First, although the dietary practices of Chinese Canadian seniors occur in complicated contexts, there is
a paucity of systematic research focusing on the effects of contextual factors on dietary practices. Second, although Canadian health care professionals are beginning to address health issues specific to the Chinese population, few Chinese Canadians and especially the Chinese elderly access the health information currently available. The evaluation about current health care services was explored from these Chinese seniors’ perspective in this research study. In order to meet these knowledge gaps, several research questions were addressed in this research.

**Research Questions**

To achieve the goals of this research, the following main research questions were addressed: (1) What are the dietary experiences of Chinese Canadian seniors? (2) What are the factors and how do they affect the dietary practices of Chinese Canadian seniors? (3) How do Chinese seniors obtain information on nutrition, health, and wellness, and what information are they being given? and (4) What services and strategies need to be improved to meet Chinese seniors’ dietary needs? There were several detailed probing questions used in the interview (see Appendix A).
CHAPTER THREE: METHOD

Qualitative Research Method

Appropriate research methods should be selected in terms of research purpose and research questions (Speziale & Carpenter, 2003). According to the research purpose and research questions in this study, qualitative research was appropriate for this study. Qualitative research is distinguishable from quantitative research with unique characteristics that are based on a number of philosophical beliefs about the world (worldview). For example, qualitative research (1) supports the belief that multiple realities exist, (2) addresses subjective meaning and describes phenomena from participants’ perspectives, (3) is conducted in a naturalistic setting, (4) acknowledges researchers as instruments, and (5) reports data that are descriptive (Speziale & Carpenter). Therefore, qualitative research offers opportunities to describe human experience, interpret complicated social phenomena, and understand human activities in the social context (Speziale & Carpenter). In this study, qualitative research methods specifically guided me to explore Chinese Canadian seniors’ dietary practices in a complicated context by obtaining rich and in-depth information from the participants’ perspectives, which cannot be achieved in terms of quantitative research. Under the general heading of qualitative research, five research methods are frequently used in nursing research studies: phenomenology, grounded theory, case study, ethnography, and historical research (Liehr, Marcus, & Cameron, 2005).

In particular, ethnography was most suitable to design and guide this study because ethnography “is the only research method whose sole purpose is to understand
the lifeways of individuals connected through group membership” (Speziale & Carpenter, 2003, p. 158).

**Ethnography**

Ethnography is a qualitative research approach originating from cultural anthropology in the early 20th century, with unique characteristics distinguishable from other qualitative research methods (Germain, 2001). The term “ethnography” comes from the Greek word *ethnos*, meaning people, race, or cultural people (Liehr et al., 2005). Anthropologists define ethnography as the study of describing culture (Speziale & Carpenter, 2003). The primary goal of ethnography is to “get at the implicit or latent (backstage) culture in addition to the explicit, public, or manifest (front-stage) aspects of culture” (Germain, p. 284). The essential core of ethnography is to provide participants with the opportunity to describe their cultural world in their own words (Speziale & Carpenter). Over the past three decades, ethnography has been introduced and developed in health care research by nurse-anthropologists, such as Leininger (Roper & Shapira, 2000). Ethnography in health professionals was defined as “a means of gaining access to the health beliefs and practices of a culture…[allowing] the observer to view phenomena in the context in which they occur, thus facilitating our understanding of health and illness behavio[u]rs” (Morse & Field, 1995, p. 26).

There are four main ethnographic schools of thought: (1) classical, (2) systematic, (3) interpretive, and (4) critical (Speziale & Carpenter, 2003). Classical ethnography must “include both a description of behavio[u]rs and demonstrate why and under what circumstances the behavio[u]r took place” (Morse & Field, 1995, p. 154), requiring “considerable time in the field, constantly observing and making sense of behavio[u]rs”
(Speziale & Carpenter, p. 154). Different from classical ethnography, which describes people and their social behaviours, systematic ethnography focuses on “the structure of the culture - what organizes the study group’s lifeways” (Speziale & Carpenter, p. 154). On the other hand, interpretive ethnographers are interested in studying the culture by analyzing the meanings of social interactions (Speziale & Carpenter). Finally, according to critical theory, critical ethnographers state that researchers and participants together “create a cultural schema,” rather than believe that “there is a culture out there to be known” (Speziale & Carpenter, pp. 154-155). Critical ethnographers “account for historical, social and economic situations” (Speziale & Carpenter, p. 155).

Besides these four major ethnographies above, another important type of ethnography frequently used in nursing research is focused ethnography, which focuses on “a distinct problem within a specific context among a small group of people” (Roper & Shapira, 2000, p. 7). Similar to classical ethnography, focused ethnography retains the essential characteristics of ethnography as well as the methods of data collection and analysis (e.g., participant observation). In contrast, different from classical ethnography, focused ethnography requires short duration, with the topic having been selected before the commencement of the study (Morse & Field, 1995). Although specific research questions have been decided before a study in focused ethnography, Roper and Shapira state, “there are no or minimal preconceived notions about the outcomes of the research. The questions…are subject to change as the study progresses” (p. 13).

Although there are different types of ethnography, they share essential characteristics which were significant in guiding this study.
Characteristics of Ethnography

Focus on culture. The first unique characteristic in ethnography is describing culture (Hammersley & Atkinson, 1983). Ethnography requires researchers to understand “the people, what they do, what they say, how they relate to one another, what their customs and beliefs are, and how they derive meaning from their experiences” (Speziale & Carpenter, 2003, p. 159). It is difficult to define the term of culture; therefore, two conceptualizations of culture are discussed in ethnography: behavioural/material and cognitive (Roper & Shapira, 2000). From a behaviour/material perspective, culture is “the way a group behaves, what it produces, or the way it functions” (Speziale & Carpenter, p. 158). On the other hand, from a cognitive perspective, culture is “the ideas, beliefs, and knowledge that are used by a group of people as they live their lives” (Roper & Shapira, p. 3). By understanding and applying these two perspectives, ethnographers will demonstrate what a group of people believe and what they do (Roper & Shapira).

Cultural immersion. The second characteristic of ethnography is cultural immersion, which is “the depth and length of participation ethnographers must have with the culture under study” (Speziale & Carpenter, 2003, p. 158). It requires that the researcher lives with the people being studied and does participant observation, lasting several months or even more to complete (Speziale & Carpenter).

Reflexivity. Another characteristic is reflexivity, which “describes the struggle between being the researcher and becoming a member of the culture” (Speziale & Carpenter, 2003, p. 158). Through participant observation, the researcher “discovers the insider’s view of the world, the emic perspective” (Roper & Shapira, 2000, p. 4), reflecting “the cultural groups’ language, beliefs, and experiences” (Speziale &
Carpenter, p. 157). At the same time, the researcher needs to realize that he/she can alter the culture by “bring[ing] the outsider’s framework, the etic perspective, to the field of study,” such as the researcher’s interpretation of data (Roper & Shapira, p. 4). Speziale and Carpenter state, “The struggle for objectivity in collecting and analyzing data while being so intimately involved with the group is a characteristic unique to ethnography” (p. 159). Accepting reflexivity “allows nurses to explore cultures within the paradigm of nursing, which values the affective and subjective nature of humans… [and] …leads to a greater understanding of the dynamics of particular phenomena and relationships found within cultures” (Speziale & Carpenter, p. 159).

Besides these three characteristics unique to ethnography, there are three other characteristics that can be claimed in other qualitative research methods as well.

Researcher as instrument. In ethnography, “researcher as instrument” specifically indicates “the significant role ethnographers play in identifying, interpreting, and analyzing the culture under study” (Speziale & Carpenter, 2003, p. 156). The primary way to be an instrument is through participant observation in ethnography. There are four levels of participant observation used in ethnography: participant, participant-as-observer, observer-as-participant, and observer (Roper & Shapira, 2000). According to different situations in the research, the researcher chooses different levels of participant observation, with participant-as-observer and observer-as-participant being those most frequently used in ethnographic research (Roper & Shapira). In ethnography, participant observation is “more than just observing, researchers often become participants in the cultural scene” (Speziale & Carpenter, p. 157). Therefore, the researcher will experience
both the insider’s (emic) view and the outsider’s (etic) view, which provides the researcher opportunities to better understand the topic of interest (Roper & Shapira).

*Fieldwork.* Speziale and Carpenter (2003) state that “all ethnographic research occurs in the field” (p. 157). In particular, “physically situating oneself in the environs of the study culture is a fundamental characteristic in all ethnographic work,” such as going to participants’ homes and attending their social activities (Speziale & Carpenter, p. 157).

*Cyclic nature of data collection and analysis.* Data collection and analysis in ethnography aim to answer questions about culture. However, “data collected by ethnographers in the field to describe the differences and similarities lead to still other questions about the culture” (Speziale & Carpenter, 2003, p. 157). Therefore, an ethnographic study “ends not because a researcher has answered all of the questions or completely described the culture, but because time and resources do not allow continuation” (Speziale & Carpenter, pp. 157-158).

*Why Choose Ethnography as Method*

Evidence in the literature review showed that dietary practices are culture-related behaviours, varying with individuals’ cultural beliefs, knowledge, habits, physical status, socioeconomic environment, and other factors. Based on understanding the characteristics of ethnography, I selected ethnography as the research method for this study because understanding the nature of dietary practices of Chinese Canadian seniors and the determining factors influencing (facilitating or inhibiting) their dietary practices in a complicated context is best achieved through ethnographic method. Moreover, in order to understand the dietary practices of Chinese Canadian seniors, it is necessary to
determine cultural knowledge linking to the meaning of diet and dietary perceptions from the Chinese elderly participants’ perspective, which is unique in ethnography.

However, due to the time and financial constraints of conducting a Master’s research project, a traditional ethnography was not feasible for this study. Based on understanding the essential characteristics and approaches in ethnography, several adaptations were considered during the data collection and analysis stages of this study.

As the student researcher in this study, I am a Chinese woman who has lived in Canada for more than three years. Although my experience and beliefs may be different from those of the Chinese elderly participants in this study due to my age, having similar cultural background and acculturation experiences has helped me to more easily understand the lived experiences of these Chinese seniors, providing me the opportunity to explore their dietary practices somewhat from an insider’s view. Furthermore, with similar cultural background and lived habits, the elderly participants easily accepted me and treated me as one of them. They were glad to share their lived experiences with me that helped me gain rich and in-depth data in this study. In addition, the relationship between the seniors and me became collaborative following the development of trust in the data collection period, which also helped me obtain more detailed information contextually regarding their dietary practices.

Formal participant observation did not occur in this study, which is a fundamental method in ethnography. However, I tried to find every chance to conduct observations. There were a number of participants who agreed to be interviewed in their homes. After obtaining their permission, I checked their kitchens and refrigerators to explore the kitchen environment, the foods they have, and the cooking equipment they use. In this
specific environment (i.e., kitchen), I found more information, plus, they were able to provide more information that did not appear during the audiotaped interviews. For example, one participant explained how she arranges and cooks her meals (e.g., how much rice she cooks daily). This kind of information could help me better understand their dietary practices.

In addition, I completed field notes after each interview. Field notes refer to “documents generated from the observations” (Speziale & Carpenter, 2003, p. 165). It included the salient points related to what I had seen, heard, and thought during the data collection process (Morse & Field, 1995); this allowed me to better understand the participants’ dietary practices.

Reflexivity allows me to be better aware of the role of researcher as well as identify the biases and potential influences on data collection and data analysis (Roper & Shapira, 2000). Being aware of biases, it is important to first consider my own worldview: my beliefs, personality, and values, could significantly influence my attitudes and behaviours in this study (Roper & Shapira). According to my own worldview, I believe that individuals have their specific dietary practices, varying with their own cultural beliefs, personality, knowledge, physical status, economic status, and living environment. Considering their dietary practices contextually makes it possible to understand their dietary behaviours and the related factors comprehensively. Second is trying to maintain objectivity in the study. I tried to provide a stress-free environment for the participants. For example, after obtaining permission to record the interview, I put my recorder under my file folder, which helped the participants more easily ignore its existence. Also, I tried to keep a nonjudgmental attitude in the interviews and not to
counsel or lead the participants. When the participants described their dietary practices during the interviews, I seldom interrupted them except to redirect them back to the research topic when they began to discuss topics that stayed away from the research questions. Some participants preferred to ask about my dietary practices or get ideas from me about what constitutes a healthy diet (e.g., “What do you think [about my opinion]?” “What do you eat in your daily life?”). At that time, I told them, “I would like to learn about your opinion this time” or “I would like to know your dietary practices now, and we can discuss mine later.” The final step is to do a member check. Bringing my preliminary interpretation to the participants helped me clarify the information obtained. Also, regular meetings with my supervisor and discussing my data analysis and interpretation with her helped me to reflect on my own cultural knowledge and how it influenced my understanding of the participants’ dietary practices in this study.

**Summary**

Little research has been conducted in exploring how cultural beliefs, values, and other factors influence the dietary practices of Chinese Canadian seniors. One of the qualitative research methods, ethnography, with culture as a unique characteristic, was selected to guide this study because it provided a contextual understanding of cultural behaviours and the relationships. In this study, it helped me explore and understand the cultural factors of their dietary practices, both holistically and contextually. Although this study was not a traditional ethnographic study, it was completed successfully by understanding and following the essential characteristics and approaches addressed in ethnography.
Moreover, during data collection and analysis process, I was guided by my theoretical framework as it provided the basis on which I could explore, describe, discuss, and understand the rich and complicated data regarding the Chinese elderly participants’ dietary practices.

**Theoretical Framework**

**PRECEDE-PROCEED Model**

The PRECEDE-PROCEED model, as a planning model, had an important role in this research. It was developed by Green and his colleagues (Green et al., 1980; Green & Kreuter, 1991). Compared with other theoretical frameworks, Gielen and McDonald (2002) discuss, “It [the PRECEDE-PROCEED model] provides a structure for applying theories so that the most appropriate intervention strategies can be identified and implemented” (p. 410). There are nine sectors in the PRECEDE-PROCEED model (see Figure 6). These will be discussed step by step, and then explained as to how they guided this research.

According to Green and his colleagues (1980, 1991) studies, PRECEDE is the acronym for Predisposing, Reinforcing, and Enabling Constructs in Educational Diagnosis and Evaluation, and PROCEED is the acronym for Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development.

Step 1 is social assessment. Green and Kreuter (1991) indicate that social assessment is important in this planning model because it helps explain people’s perceptions of their needs. In addition, Gielen and McDonald (2002) point out that a good understanding of the community in which people live is necessary in the process of social assessment.
Research implication. This gave me a starting point for my research: communicating with the Chinese elderly about their dietary practices would help me understand the environment in which the Chinese Canadian seniors live, and how environmental conditions influence these seniors’ dietary practices.

Step 2 is epidemiological assessment. This assessment determines which health problems are most important in which groups (Green & Kreuter, 1991). Through epidemiological assessment, “Limited resources are being used to address health problems that contribute significantly to larger societal problems. . . . [It] can help to specify subgroups at particularly high risk” (Gielen & McDonald, 2002, p. 415). Statistical data will be obtained during this process. In this research study, I could not obtain the data about epidemiological assessment due to the limitations of qualitative research.

Step 3 is behavioural and environmental assessment. Specifically, Gielen and McDonald (2002) indicate:

Behavioral factors are those behaviors or lifestyles of the individuals at risk that contribute to the occurrence and severity of the health problem.

Environmental factors are those social and physical factors external to the individual . . . that can be modified to support the behavioral or influence the health outcome. (p. 416)

Although biological and genetic factors cannot be changed by health practices, as Gielen and McDonald discuss, “they may be helpful . . . in identifying specific high-risk groups for intervention” (p. 416).
Research implication. When I collected data, I gained socio-demographic data by completing a socio-demographic data form (see Appendix B), including information such as age, gender, and physical status. The use of private information may cause ethical issues. Therefore, the information was not audio-taped, and was used only to aggregate demographic information in this study, such as ages in rage.

Step 4 is educational and ecological assessment, and it "identifies the antecedent and reinforcing factors that must be in place to initiate and sustain the change process" (Gielen & McDonald, 2002, p. 417). These factors are categorized into three sectors: predisposing, reinforcing, and enabling factors. According to Green and Kreuter (1991),

Predisposing factors are those antecedents to behavior that provide the rationale or motivation for the behavior. ... Enabling factors are the antecedents to behavior that enable a motivation to be realized. . . .

Reinforcing factors are factors subsequent to a behavior that provide the continuing reward or incentive for the behavior and contribute to its persistence or repetition. (p. 151)

In addition, the relationship among these factors is displayed in this model. For instance, Green and Kreuter assert that reinforcing factors today can be predisposing factors tomorrow, as confirmed in previous studies (e.g., childhood experience in McKie et al., 2000). According to the literature review, considering these factors in my particular research, the dietary practices of Chinese Canadian seniors, predisposing factors might include these seniors' traditional beliefs, preferences, health beliefs and knowledge, religion, dietary knowledge and beliefs (Satia et al., 2000), and childhood experiences (McKie et al.). In addition, reinforcing factors consisted of attitudes of family members,
friends, and others (Satia et al.). For example, Satia et al. found that older adults affected the eating patterns in the family more than other family members, and they preferred the traditional Chinese diet. Finally, enabling factors consisted of convenience, cost, availability, and the quality of foods (Satia et al.). For instance, Newman and Linke (1982) found that the traditional food habits of their study participants living in Chinatown had changed less than their counterparts living in Queens when they move to the U.S., one reason for this being the difference in accessibility to traditional Chinese food between these two groups.

*Research implication.* When interviewing the participants in my research, the questions such as “Who usually buys your food?” “Who usually cooks your meals?” “Who usually eats meals with you?” “How these people who help you buy/cook food or eat with you influence what you eat?” and “What additional factors might affect your choice of food?” were asked as the probing questions to explore the predisposing, reinforcing, and enabling factors influencing the participants’ dietary practices.

Step 5 is administrative and policy assessment. The PRO in the PRECEDE-PROCEED model occurs in this step: policy, regulation, and organization. The purpose of this step is “to identify policies, resources, and circumstances prevailing in the program’s organizational context that could facilitate or hinder program implementation” (Gielen & McDonald, 2002, p. 419). In addition, intervention strategies in this planning model are delineated at this stage.

*Research implication.* In this research, the data on Chinese community services, Chinese and Canadian social resources, and health care programs and policies on seniors’ nutrition were documented and analyzed according to the PRECEDE-PROCEED model.
Finally, steps 6-9 are implementation and evaluation, including implementation, process evaluation, impact evaluation, and outcome evaluation. Basically, process evaluation determines the extent to which the program was implemented according to protocol. Impact evaluation assesses change in predisposing, reinforcing, and enabling factors, as well as in the behavioral and environmental factors. . . . Outcome evaluation determines the effect of the program on health and quality-of-life indicators. (Gielen & McDonald, 2002, p. 420)

Because this research focused on assessment and intervention, the details of steps 6-9 are not discussed.

*Research implication.* Based on the previous discussion concerning the PRECEDE-PROCEED model, especially the predisposing, reinforcing, and enabling factors, it can be assumed that these factors influencing individuals' behaviours are culturally determined, varying among different populations. It is an appropriate model used in cross-cultural research (Satia et al., 2002). Therefore, only when I assess PRE-PRO factors that influence the dietary practices of Chinese Canadian seniors holistically is it possible to gain meaningful information that will help provide effective intervention strategies towards their dietary behaviours. In addition, I preferred to separate behaviours from other components in steps 1-5, and classify other components (except personal characteristics) into predisposing, reinforcing, and enabling factors. This is because I believe that the community (social assessment), special group characteristics (epidemiological assessment), social environment (environmental assessment), and current policies (administrative and policy assessment) can be identified as predisposing,
reinforcing, and enabling factors that influence individuals' behaviours. For example, when discussing reinforcing factors, the effects of administration and policy cannot be ignored because family members or clients themselves can attain health information from health care services, and then the information can affect clients' behaviours indirectly or directly. Therefore, it is reasonable to identify administration and policy as underlying predisposing, reinforcing, and enabling factors. On the other hand, social and epidemiological factors can also be classified into potential predisposing, reinforcing, and enabling factors. For example, a community's problem-solving capacity is assessed in the step of social assessment (Gielen & McDonald, 2002), and this capacity affects the availability and accessibility of traditional Chinese food (enabling factors) directly.

In summary, I considered a PRE framework (i.e., predisposing, reinforcing, and enabling factors) to categorize the contextual factors influencing the dietary practices of Chinese Canadian seniors in analyzing research findings.

*Kleinman’s Explanatory Models (EMs)*

Explanatory models (EMs) originated in Kleinman’s (1978) study. Dr. Arthur Kleinman is a renowned psychiatrist and anthropologist worldwide, and his explanatory models provide a systematic method for analyzing the impact of culture on individual's sickness and healing. Kleinman states that health beliefs, values, attitudes, and activities in a given society shape health care systems. In other words, the way the people of a particular society identify health and illness, their cultural beliefs, behaviours, and the expectations toward treatments shape its health care system. In addition, medical systems are viewed as cultural systems because health care systems' origin, structure, and function are culturally constructed (Kleinman).
Before discussing EMs, it is necessary to first clarify several important concepts in this model. The first one is culture. Kleinman (1978) defines it as "a system of symbolic meanings that shapes both social reality and personal experience" (p. 86). Kleinman further elaborates that culture mediates between 'internal' (i.e., psychological, behavioural, and communicative) and 'external' (i.e., social, political, economic, epidemiological, and technological) parameters of medical systems. Therefore, culture is a significant determinant of medical systems' content, effects, and functions (Kleinman). In this study, culture was explored as a strong determinant in shaping how elderly Chinese participants access health resources and keep a healthy diet. The second component is the distinction between disease and illness. Kleinman indicates that the main conflict between the professional (biomedical) explanatory model and the popular explanatory model is the understanding of sickness: the former treats sickness as disease, whereas the latter construes sickness as illness. Therefore, in Kleinman's theoretical model,

[D]isease denotes a malfunctioning in or maladaptation of biological and/or psychological processes. Illness . . . signifies the experience of disease (or perceived disease) and the societal reaction to disease. Illness is the way the sick person, his family, and his social network perceive, label, explain, valuate, and respond to disease. (p. 88)

Moreover, Kleinman reasons,

[D]isease is most commonly associated with the EMs of professional practitioners (modern or indigenous), where it relates to special theories of disease causation and nosology that are stated in an abstract, highly technical, usually impersonal
idiom. . . . Illness is principally associated with the EMs of the popular culture arena of health care, where sickness is most frequently articulated in a highly personal, non-technical, concrete idiom concerned with the life problems that result from sickness. (p. 88)

Finally, Kleinman (1980) discusses the last significant concepts in EMs: social reality and clinical reality, which are two important components in health care systems. Both components are “cultural constructions, shaped distinctly in different societies and in different social structural settings within those societies” (Kleinman, p. 38). In detail, Kleinman asserts that social reality refers to human interactions that include meanings, social structures, and behaviours in a society. Further, Kleinman suggests that “beliefs about sickness, the behavio[u]rs exhibited by sick persons, including their treatment expectations, and the ways in which sick persons are responded to by family and practitioners are all aspects of social reality” (p. 38). On the other hand, clinical reality is a health-related aspect of social reality. It is defined as “the beliefs, expectation, norms, behavio[u]rs, and communicative transactions associated with sickness, health care seeking, practitioner-patient relationships, therapeutic activities, and evaluation of outcomes” (Kleinman, p. 42).

Based on the understanding of the basic concepts in EMs, I can follow Kleinman (1980) to explore the inner structure of the health care system consisting of three overlapping domains, each with its own distinct explanatory model of health and illness: the popular, the professional, and the folk sectors. In detail, Kleinman indicates that the popular sector includes family, community, and social network; the professional one consists of nursing, medicine, and other health care professionals; and the folk sector
comprises other nonprofessionals, such as traditional Chinese health practitioners. Kleinman emphasizes that the popular sector is the biggest part of the health care system, and the decisions in this sphere are affected by the popular cultural beliefs and values about health and illness. In contrast, the professional sector is defined as modern scientific medicine. Kleinman further states that in many societies, the modern medical profession has dominated the whole health care system by using legal and political means, and has forced other healing traditions to submit to its power. In addition, Kleinman criticizes that many health care professionals in today's society hold the false ideology that the popular or folk sectors are irrational and unscientific, which leads to health care professionals' insensitivity towards patients' expectations. In order to prevent the misunderstanding and mistrust between health care professionals and patients, Kleinman suggests that health care professionals should recognize

\[ \ldots \] patients' beliefs and values with respect to their illnesses and treatments and to negotiate with (or translate between) these differing perspectives in the same way an advisor gives expert advice to an advisee, who retains the right to accept, alter, or reject that advice. (p. 58)

The sphere between the popular sector and the professional sector is the folk sector of health care, and it has two distinct components: sacred and secular. Kleinman states that sacred healing is from folk religion and ritual curing, while secular healing includes "herbalist, traditional surgical and manipulative treatments, special systems of exercise and symbolic non-sacred healing" (p. 59). Although many modern medical professionals have a skeptical attitude about the effectiveness of the folk sector of health care, as Kleinman discusses, there are many forms of folk healing that play a significant role in
the patients' lives in Western and developing countries. Therefore, the influences of traditional Chinese medicine in the participants' dietary practices were explored in the interviews.

In analyzing Kleinman's (1978, 1980) EMs, I realized that this approach to patient care is appropriate to my research because it emphasizes multiple perspectives, cooperation with clients, and consideration of the clients' perspective holistically, when health care professionals assess, intervene, and evaluate the behaviours of clients.

Culture was the first concept addressed in this study since culture can shape individual responses to health and illness, including how they define a healthy diet (Kleinman, 1978). Also, it may be possible there are cultural interpretations, beliefs, and personal perceptions of diet and illness among Chinese population, which are outside and not congruent with Canadian health care professionals' biomedical understanding of diet and disease. Therefore, health care professionals should consider the folk and popular sectors' explanation and understanding of health related problems, especially when they consult clients with different cultural backgrounds. In fact, in the literature review, I found many references discussing the consideration of different perspectives when health care professionals provide consultation to the clients with different cultural backgrounds, although they do not categorize these perspectives as the popular, folk, and professional sectors. For example, Sekhon (1996) reviews a four-step process to improve cross-cultural counselling for health care professionals: (1) self-evaluation about health care professionals' own cultural background, (2) pre-interview about ethnic culture, (3) in-depth interview to know the ethnic groups' cultural background, food habit adaptations, and personal preferences, and (4) modification of these groups' diets. In addition, Sekhon
summarizes appropriate strategies to provide effective consultation. For instance, health care professionals use other health care professionals from the ethnic groups as important resources to learn the dietary practices of ethnic groups, and it is similar to the folk explanatory approach in Kleinman’s (1978, 1980) EMs. In this study, the questions of “What is your idea of healthy food?” and “What kind of cultural beliefs influence what you eat?” were asked in the interviews.

At the same time, culture needs to be considered in its particular context in relation to socioeconomic, geographic, and other factors (Donnelly, 2002; Kleinman, 1978). In other words, factors such as educational, economic, social, and biologic differences also influence the elderly Chinese when their dietary behaviours occur in a cultural context. Therefore, influences of these factors on their diet were explored by finishing a socio-demographic questionnaire and asking questions of “What additional factors might affect your choice of food?” and “Do you have any financial problems in buying your favourite foods?”

According to Kleinman’s EMs (1978, 1980), an individual’s perceptions of health information and health services may play a significant role in whether they follow health suggestions to improve their dietary practices. Therefore, it is important to explore their understanding of current health services. In this study, the questions of “What do you think about the current information that you get about health and nutrition?” and “What would be the best possible way for us (e.g., health care providers) to help you get the information related to healthy diet?” were asked in the interviews.

*Research implication. As a beginning of systematic research on the dietary practices of Chinese Canadian seniors, this research still focused on the perspective of*
Chinese Canadian seniors because recognizing clients' beliefs, values, and their understandings of illness and treatment is essential to provide appropriate health care services (Kleinman, 1980). In addition, understanding the Chinese elderly participants' perspectives in each sector is necessary as well. Therefore, the different effects between the professional sector and the folk sector on the dietary practices of Chinese seniors were examined in this research by asking "When you need the information about nutrition and healthy diet, where do you get it?" and "Is it difficult for you to get the information related to healthy diet from health care services, and why?" Moreover, the information about the participants' accessing to current health care services was obtained by asking their socio-demographic information in the interviews.

In summary, According to Kleinman's (1978, 1980) EMs, my research focused on the perspective of Chinese Canadian seniors by interviewing them because recognizing their conceptualization of nutrition and healthy diet and how their cultural beliefs, knowledge, and values shape their expectations toward healthy diets within Canadian context is essential to provide appropriate health care services. In addition, Kleinman's EMs were used to help design the questionnaire and guide me to gain information to better understand the interactions between Chinese Canadian seniors, traditional Chinese health care services, and Western health care professionals, which revealed how both Western and traditional Chinese cultural values and beliefs influence these seniors' lived experiences culturally, socially, and individually.
Research Design

Site

This research was conducted in Calgary, Alberta. Calgary has the third-largest population of Chinese immigrants, following Vancouver and Montreal (Statistics Canada, 2001b). In order to find participants with varied background, several sampling methods, such as convenience, purposive, and snowball sampling, were used for this study to recruit the Chinese elderly participants. Convenience sampling refers to “the use of the most readily accessible persons or objects as subjects in a study” (Haber & Singh, 2005, p. 287). Comparably, purposive sampling “selects individuals for study participation based on their particular knowledge of a phenomenon for the purpose of sharing that knowledge” (Speziale & Carpenter, 2003, p. 67). For example, according to the literature review, gender difference and social isolation may bring different barriers in seniors’ dietary practices. Therefore, two widowed female seniors were recruited in this study to explore their specific dietary practices. Finally, snowball sampling is used “for locating samples that are difficult or impossible to locate in other ways” (Haber & Singh, p. 287). Friends, community members, and interview participants can be used to recruit participants in snowball sampling. There were three sources from which potential participants were recruited. The first source was a local community centre for the Chinese elderly. The centre provides a significant number of services for Chinese seniors, including social/recreational programs, educational programs, health care services, special needs support groups, and outreach programs (CCECA, n.d.). For the Chinese seniors, this center is an ideal place where they can meet, communicate, and have
activities with each other regularly. After being introduced by a staff member in the center, I did a brief presentation about my research to the Chinese seniors in the Mandarin group and left my contact information further. After the presentation, some seniors agreed to attend this research study and left their contact information for me. The second source was health care professionals working in Chinese communities. I tried to contact several health care services related to home care and senior programs in Calgary Health Region by sending an information letter introducing and explaining this study (see Appendix C), and asking them to forward my research information to other practitioners who may help me. Finally, a Chinese community worker who works in a community program for the elderly introduced my research to her clients, with some of her Chinese clients agreeing to participate in this research study. Also, she introduced these clients’ general information to me, which helped me choose the participants of interest. The third source was some of my Chinese friends and the elderly participants. They asked their elderly friends whether they would be glad to attend my research. After getting permission, they gave me the seniors’ contact information. I found an interesting phenomenon during recruiting participants in this study: many Chinese seniors hesitated to attend the research when they met me the first time, even though they were interested in the research. They felt free to contact me and agreed to attend this research after they knew about me and my research from their friends.

Participants

Ten participants were selected to explore their dietary practices and contextual factors. The participants varied with different backgrounds, including gender, age, language, birthplace, length of years living in Canada, educational level, economic status,
physical status, and so on. Detailed demographic information is displayed in the
Demographic Results section. Terms “participants” and “interviewees” were used
interchangeably in this research study.

Criteria for Selection of Participants

1) Chinese 65 years of age or older;

2) Can communicate in English, Mandarin, or Cantonese;

3) Live in their own home in Calgary; and

4) Are involved in decision-making regarding their diet, even when there are other
persons who help purchase and prepare foods.

Method of Data Collection

Two in-depth, open-ended, semi-structured interviews were conducted. The semi-
structured questionnaire with open-ended questions encouraged the participants to
provide information about their dietary experiences in their own words (Liehr et al.,
2005; Speziale & Carpenter, 2003). Based on the literature review and the theoretical
frameworks, I designed the questions in the semi-structured questionnaire in order to
better guide the elderly participants to focus on the research topic and ultimately provide
all the necessary information. At the same time, this semi-structured format enabled the
elderly participants to share their beliefs, opinions, and experiences freely, which helped
me obtain rich information related to their dietary practices (Morse & Field, 1995). The
semi-structured questionnaire used in the first interview was developed in English (see
Appendix A). When I translated the questions into Chinese, I paid attention to the
meaning of questions instead of the literal wording of questions, and went through the
questionnaire item by item to ensure lexical equivalence.
All the interview probing questions in the semi-structured questionnaire had been pre-tested by asking both a Caucasian elderly woman in English and a Chinese Canadian elderly woman in Mandarin in preparation for interviewing the participants in this study. In addition, the Chinese Canadian woman has been a volunteer working with Chinese Canadian seniors for more than two years, and she gave me useful suggestions to ensure that the questions were not threatening.

My first language is Mandarin, and I am able to comprehend Cantonese very well. Therefore, I interviewed the participants who speak in Mandarin. For the participants who are able to only communicate in Cantonese, an interpreter fluent in both English and Cantonese was employed for the interviews. The interpreter was asked to sign an agreement of confidentiality to not discuss the participants’ information in this research with others in keeping with all confidentiality protocols. The questions and the confidentiality issues had been discussed with the interpreter before the first interview. When any misinterpretations happened during the interviews, I interrupted and corrected the interpreter immediately. All the participants preferred to communicate in either Mandarin or Cantonese during the interviews, even though a few of them were able to speak English fluently.

All of the ten participants attended the first interview, but two of them refused to attend the second interview because of busy schedules in the summer time. The interviews were carried out from January to June, 2007, with about two months between the first and second interviews decreasing the influences of the first interview on the second interview (Winter Falk et al., 1996). During the interview, we would move to a new question when there was no more new information relating to the current question.
Both interviews lasted approximately 1½ hours. Some interviews took longer because the participants preferred talking. All of the interviews were audio-taped after getting permission from the participants. Mostly, the participants preferred to be interviewed in the center because they could attend their activities at the same time. In addition, some of them chose to be interviewed in the places where they feel comfortable such as their homes or the researcher's home. Field notes had been completed within 24 hours of the interviews. Based on the field notes, questions that emerged from the first interview were asked in the second interview. Data collection included English translation, as required, while interviews were proceeding.

After asking all the questions in the first interview, we turned off the tape recorder. Then, we collected their socio-demographic data by finishing a socio-demographic questionnaire (see Appendix B). In addition, an eco-map (Hartman, 1978) for each participant was completed to explore his or her social relationships and support network (see Figure 7), and the detailed information about the eco-map relationship was collected as well (see Appendix D). The eco-map was developed by Hartman as an assessment and intervention tool to examine the needs of families. Hartman states, "The eco-map is a simple paper-and-pencil simulation. . . . It maps in a dynamic way the ecological system, the boundaries of which encompass the person or family in the life space" (p. 467). In addition, the eco-map "highlights the nature of the interfaces and points to conflicts to be mediated, bridges to be built, and resources to be sought and mobilized" (Hartman, p. 467). There are two main sections in the eco-map: family/household and environmental parts (see Figure 8 as an example).

Family/household is the biggest circle in the eco-map and represents family members as
per their genders, ages, and relationships among each other (squares depict males, while circles depict females). Environmental parts, including many small circles around the circle of family/household, represent the systems that affect the family/household, such as health care, church, extended family, recreation, and other systems that vary among families. Dietary practices of Chinese Canadian seniors are in a multidimensional context and affected by cultural, social, economic, and other factors. Drawing an eco-map helped me to learn about the contextual information clearly and to identify the relationships between factors. In addition, it also helped the elderly participants reminisce (Hartman). These details obtained from the eco-map assisted me to gain comprehensive and complete data regarding participants' dietary experiences.

In the second interview, I brought my preliminary data, initial analytic interpretations, and questions emerged from the first interviews to the participants (see Appendix E), which enabled me to clarify and discuss with the participants the emergent themes and concepts.

The data collected in this research included the information from in-depth interviews and my field notes from interactions with the participants and informal observation. Socio-demographic data and an eco-map were also gathered during the first interview.

Data Analysis

The data collection and data analysis occurred concurrently and all the first interviews were transcribed and initially analyzed before conducting the second interviews. As suggested by Carspecken (1996), Germain (2001), Morse and Field
(1995), and Speziale and Carpenter (2003), there were three main steps to data analysis in this research: coding, analysis, and interpretation.

Coding data is the first step in the process of data analysis, which is "essential for moving from the concrete raw data to higher levels of abstraction" (Germain, 2001, p. 296). When coding data, there were several principles to consider: (1) All interviews were translated into English, annotating to clarify cultural and linguistic information, and transcribed word-for-word as soon as possible following each interview, and field notes were completed within 24 hours of each interview, (2) the transcripts of the interviews were rechecked a few times against the tapes and corrected, and then a hard copy was obtained for preliminary data analysis, (3) regular meetings with my supervisor were held to review the transcripts and field notes in order to ensure their validity, and (4) transcripts were coded to identify preliminary themes and to formulate a list of code categories to organize subsequent data. Code categorizing is "a careful mental process of logical analysis of content from all data sources" (Germain, p. 296). In the process of data analysis, considering topics as categories may be necessary (Morse & Field, 1995). In this study, I used the predisposing, reinforcing, and enabling factors (the PRE factors) as the main initial categories in order to code raw data. Cultural beliefs, influences of other people, and accessibility and availability of traditional Chinese foods were considered under the general headings of the PRE factors. At the same time, a line-by-line analysis was used as well (Morse & Field) in order to not miss any meaningful themes. I tried to identify preliminary themes from the data as much as possible. After careful reading of the transcripts, segments that seemed to be representative of the participants' actions and opinions were selected. My interpretations of these statements were then recorded. This
process enabled me to make explicit the underlying possible meanings of the participants’ actions and thoughts. Recoding was done in each transcript in order to find more relevant code and revise code categories. With a basis of the code categories from the first transcript, coding in the second transcript was done with similar coding as in other transcripts.

During the stage of data analysis, a systematic analysis was conducted. This included determining preliminary code categories and comparing the code categories from different transcripts, examining the relevance of data coded in one category to that in other categories through a systematic and rigorous development of code categories and subcategories. A set of complicated and interrelated themes and concepts were obtained during this data analysis. In this stage, reading the transcripts and comparing them with preliminary code categories were necessary in order to clarify and further develop themes and categories.

The final step was interpretation. Based on the data analysis, I brought the coded data, my analytic interpretations, and questions to the participants in the second interview to clarify and discuss the emergent themes and ideas with these participants. It was important to discuss the preliminary results with the participants (i.e., member check) to ensure the study’s rigour and credibility. In addition, it also provided a valuable opportunity to better understand the data, revise the code categories, and discover more important data. Therefore, that enabled to improve my analysis from individual experiences to an exploration in a social and cultural context.

Having regular meetings and discussions with my supervisor was invaluable throughout the data collection and data analysis process. At the beginning of the
interviews, Dr. Donnelly guided me in how to do an effective interview and how to remain objective in the interviews. After each interview, we met and she provided meaningful suggestions based on my questions and field notes in the interviews. In addition, she worked with me on each transcript and trained me to do coding and generate valuable themes. Finally, discussions with her regarding the preliminary results, categories, and subcategories helped me achieve a higher level of data conceptualization.

According to the PRECEDE-PROCEED model, the dominant categories that emerged from data analysis included Cultural influences, Influences of family members, peers, and health care professionals and services, and Biological changes, psychological health, accessibility and availability of traditional Chinese foods, and financial issues. The themes in these categories as contextual factors influenced the elderly Chinese participants on gaining a healthy diet. The next chapters focus on the findings, provide a discussion of these themes, and offer recommendations.

Ethical Considerations

After my supervisory committee approved the research proposal, permission to conduct this research was obtained from the Conjoint Health Research Ethics Board (See Appendix F). All participants signed a consent form with general information about the study (see Appendix G) prior to the first interview, including permission for audio taping all interviews. The consent form was developed in English and I translated it into Chinese. I sent the Chinese version to one of my Chinese colleagues, whose major is English education, and asked her to back-translate my Chinese version into English without seeing the original English version. I compared her English version with mine, and both English versions were lexically equivalent. I used a Chinese version (either
Simple Chinese or Traditional Chinese) in the interviews, depending on each participant’s preference. Participants were free to withdraw from this study at any time without any repercussions or in any way jeopardizing their current health care services.

I paid attention to the use of pseudonyms to protect the privacy and to preserve confidentiality and anonymity of the participants during data collection, analysis, and writing the thesis. All information regarding the participants was kept confidential. All transcripts were stripped of any personal identifying information. Pseudonyms and codes were used for all participant data to ensure anonymity. Raw data were assigned by code numbers that did not link the participants with the data. All data published will maintain the confidentiality of the participants. The socio-demographic information obtained from the interviews was not audio-taped and only used to aggregate demographic information. All of the transcripts and tapes were kept in a locked cabinet and a password-protected computer. The interview tapes will be destroyed seven years after the completion of the study. The data without identifying information may be kept longer for second analysis in subsequent research.

Discussing the transcripts with my supervisor and finishing field notes after each interview helped me try not to bring personal values to the participants. Also, the second interview allowed me to review and discuss the preliminary results with the participants to ensure the study’s rigour and credibility (Speziale & Carpenter, 2003).
CHAPTER FOUR: RESULTS

Demographic Results

The demographic data was collected by having each participant complete a socio-demographic questionnaire (see Table 1). The varied responses and an understanding of their social network helped me understand their dietary practices in their specific context.

Table 1

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Birthplace</th>
<th>Marital Status</th>
<th>Physical Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-88</td>
<td>Female—5</td>
<td>Mainland China (7)</td>
<td>Married (8)</td>
<td>Most participants have chronic diseases</td>
</tr>
<tr>
<td></td>
<td>Male—5</td>
<td>Taiwan (1)</td>
<td>Widowed (2)</td>
<td>(e.g., hypertension, high blood sugar)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hong Kong (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of Living in Canada</td>
<td>Living Arrangement</td>
<td>Living with Others</td>
<td>Sources of Income</td>
<td>Yearly Family Income</td>
</tr>
<tr>
<td>6-38 years</td>
<td>Apartment (4)</td>
<td>With spouses (7)</td>
<td>Employment Insurance (1)</td>
<td>Less than $9000 (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(7)</td>
<td>Pension (5)</td>
<td>$9000-$19000 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With children (1)</td>
<td>Family support (2)</td>
<td>$20000-$29000 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alone (2)</td>
<td>Own salary (2)</td>
<td>Over $80000 (2)</td>
</tr>
<tr>
<td></td>
<td>House (5)</td>
<td></td>
<td></td>
<td>Don’t know (1)</td>
</tr>
<tr>
<td></td>
<td>Condominium apartment (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Language</td>
<td>Educational Level</td>
<td>English Proficiency</td>
<td>Friends (Generally)</td>
<td>TV or Radio (Generally)</td>
</tr>
<tr>
<td>Mandarin (5)</td>
<td>University (4)</td>
<td>Poorly (6)</td>
<td>Chinese friends (9)</td>
<td>Chinese (8)</td>
</tr>
<tr>
<td>Cantonese (5)</td>
<td>High school (4)</td>
<td>So-so (2)</td>
<td>Both Canadian and Chinese friends (1)</td>
<td>Both Chinese and English (1)</td>
</tr>
<tr>
<td></td>
<td>Less than high school (2)</td>
<td>Fluently (2)</td>
<td></td>
<td>English (1)</td>
</tr>
</tbody>
</table>

Ten Chinese seniors living in Calgary, Alberta, Canada were recruited in this research study (5 females and 5 males), with ages ranging from 65 to 88 years of age. Seven of the participants were born in mainland China, with two born in Hong Kong and one born in
Taiwan. The length of time participants have lived in Canada varies from 6 to 38 years. Regarding marital status, eight of them are married, living with their spouses (one of whom also lives with his child), and the other two female elders are widowed. All 10 participants have children, eight of whom have children living in the same city as they do. The five male participants all live in their own houses or condominium apartments. Four of the female participants live in apartments, three of whom live in seniors’ apartments, and one female senior continues to live in her own house. From a religious perspective, five of them identified themselves as Christian (3 males and 2 females), one as Buddhist (female), and the other four did not subscribe to any particular religion.

All participants except for one man reported having some kind of chronic disease(s). The most common physical problems reported by these elderly Chinese participants were high blood sugar and hypertension. Generally they follow Western medicine, with some participants stating that they do not choose traditional Chinese medicine because it is not covered by the current health insurance plan and they would have to pay by themselves. Regarding their access to health services, all participants reported that they see a physician regularly. Most of their family physicians are Chinese in this study, and it may be because Chinese immigrants prefer to choose family physicians with their ethnic background (Ma, 1999). All the family physicians can speak fluently in Cantonese or English. As a result, the participants who could speak Cantonese or English have no problem communicating with their family physicians. However, those who can only speak Mandarin complained that it was difficult to communicate with their family physicians because the physicians cannot speak Mandarin very well or not at all. Some participants also had problems when communicating with the specialists because
most specialists are Westerners and cannot speak Chinese. The participants needed translators or used simple words to communicate with the specialists.

Five participants' first language is Mandarin, with the other half speaking Cantonese as their first language. Most participants stated that their English is not good, with the exception of two male participants, both of whom had professional jobs in Canada, and believed their English was fluent. Regarding educational level, two participants did not complete high school, four had high school diplomas, and four earned a university or college degree. Of these four, only one of them graduated from a Canadian university, with the other three having completed their degrees in China.

Generally, their friends are similar in ethnic background. Most participants prefer to access media (e.g., watch television or listen to the radio) in Chinese as well as attend ethnic community activities. In particular, six participants regularly attend the activities organized by the local community centre, and another two participants go to a Chinese church regularly. Their annual family income before taxes varied, from less than $9,000 to over $80,000. According to the City of Calgary Community Strategies (2003), all female participants except for one (who did not want to reveal her annual income) have income below the low income cut off and three male participants have income near it. The majority of participants receive financial supports by pension, Employment Insurance, or their salary. All male participants had work experience in Canada. Compared with their male counterparts, only one female participant had worked in Canada. Three of the female participants moved to Canada after retiring in China, and the other one became a housewife after moving to Canada. Two female participants stated that they receive economic support from their children.
Different from other research studies in which women usually cook at home (Newman & Linke, 1982; Satia et al., 2000, 2001, 2002), all participants reported being involved in preparing food, with the exception of one male participant. The female participants stated that they cook at home all the time, and the four males commented how they help their wives prepare food (e.g., cooking or buy groceries) or share this duty with their wives.

Although we cannot generalize the relationship between these demographic results and the factors influencing the dietary practices of the elderly Chinese participants, these results provided an important context in which we might better understand the factors discussed below.

**Cultural Influences**

Cultural beliefs play a major role in people's dietary practices. Kleinman (1978) stated that culture is a significant factor influencing individuals' behaviours, beliefs, diets, perceptions, and responses to health and illness. In addition, according to the PRECEDE-PROCEED model, Green and his colleagues (1980, 1991) addressed that predisposing factors, including individuals' beliefs, attitudes, values, and knowledge, provided the rationale or motivation for their behaviours. Therefore, in order to provide appropriate and effective health care programs to Chinese Canadian seniors, it is necessary to develop an awareness and understanding of how their cultural beliefs and values influencing their dietary practices.

Based on data analysis, there were a number of categories reflecting strong cultural influences on the dietary practices of these elderly Chinese participants. The participants believed cultural values as well as cultural conceptualization of an
appropriate diet to be factors significantly affecting their dietary practices. Moreover, these elderly participants expressed significant concerns related to the effect of dietary acculturation.

**Cultural Conceptualization of an Appropriate Diet for Seniors**

Cultural conceptualization of an appropriate diet for seniors was addressed significantly by the elderly Chinese participants in this research study. There were several ideas about what would constitute an appropriate diet for seniors, with four main common opinions being (a) "Keeping a balanced diet,” (b) “Having a plain diet,” (c) “Eating less refined foods,” and (d) “Fitting physical needs.”

**Keeping a balanced diet.** The traditional Chinese diet refers to a balance between *fan* (cooked grain products or the starchy portion of the meal) and *ts’ai* (vegetables and meat consumed in mixed dishes) or “hot” and “cold” foods (Simoons, 1991). All participants believed that keeping a balanced diet would generally be considered healthy and appropriate for seniors, although they each have their own perception about what constitutes a balanced diet. The following statement from Mrs. A. described her understanding about how to keep a balanced diet:

We need to keep nutrition balanced. I totally agree with it. For example... we eat less grain products now. If we eat less grain products, we need to eat other foods to keep full. We eat more fruit in summer. However, we cannot eat too much fruit [at] once. For example, we eat cherries... we just eat 10 cherries [at a] time. After a few hours, such as at night, we eat another 10 cherries, or at lunchtime.

So, we eat it several times instead of eating too much [at] once; otherwise, our
blood sugar will be high quickly. Therefore, I believe keeping a balanced diet is more important than what we eat, a balanced diet.

Some participants also considered that “Keep a balanced diet” could be understood as keeping a balance between “input” and “output.” Mrs. C. explained her opinion: “We promote ‘balanced diets’ in China. [A] healthy diet is that [which is] based on your [needs]; the input and output should keep a balance. You need to absorb the same amount of nutrition as you use up.” Moreover, some participants stated that eating varied foods is essential in order to “Keep a balanced diet.” For example, Mr. H. addressed:

We need to eat all kinds of vegetables and fruit, not just one [kind]. For example, we cannot just eat apples . . . [like if] someone says, ‘I have already eaten fruit but I just eat apples, no others. I eat vegetables but just cabbage, no others.’ That is not right. Every food has more of some nutrients and less of others. [For example], I [could] eat cabbage today . . . then eat carrots tomorrow. Eventually, I will not be lacking anything.

Mr. T. also explained how he and his wife keep a balanced diet based on the Yin and Yang philosophy:

My wife, according to traditional Chinese medicine . . . belongs to ‘cold.’

Generally, for ‘cold’ people, she has low blood pressure instead of high blood pressure . . . for me, I have a ‘hot’ body. Having a ‘hot’ body, I need to eat ‘cold’ foods, more plain foods and cold foods. For my wife, she needs more tonic foods.

So, she prefers lamb. We believe that lamb is a little more ‘hot.’

Considering medicinal values of food against chronic diseases was also reported by some participants, which is essential in the Yin and Yang philosophy (Koo, 1984). For
example, Mr. T. stated that “Si Wei Tang” (a kind of soup with four different foods inside) is good for his stomach pain. Mrs. B. also mentioned: “I take Ganoderma lucidum [Reishi] syrup bought in China, and it’s good for my kidney. There were so many bubbles in my urine. After I take it, the bubbles become less.”

Finally, for some participants keeping a balanced diet, one might need to take food supplements. Mrs. A. explained: “It is said that usually people eat more vegetable oil, which has Omega 6, and that causes an unbalance between Omega 3 and Omega 6, and that is the reason [why you need to take seal oil].” However, a few participants stated that seniors need to take food supplements carefully. Mr. H. pointed out:

They [some seniors] take a lot of supplements every day, no matter they need or not. Eating Vitamin supplements too much will become a toxicant. If you eat too much Vitamin C, it will leave by itself, and no problem. But for other Vitamin, for example Vitamin B, if you take too much . . . the doctor suggested you to take one tablet per day, you said, ‘I would like to be better.’ You take 2 or 3 tablets, and then it [Vitamin B] will be a toxicant. For me, I think there is no difference between toxicants and medications.

**Having a plain diet.** “Having a plain diet” is a significant opinion influencing the participants’ diet. According to the interviewees, “a plain diet” is a diet that consists of less oil, less salt, less sugar, less fat, less seasoning, less protein, less starch, and less meat. Mrs. S. described what she considered a plain diet to be: “For me, a senior, I need to eat some plain foods, very plain, less sugar, less salt, and less oil, which is the most important thing for my health. I eat like this now.” Mrs. B. also mentioned that she ate dishes cooked with vegetable oil rather than lard. Mr. J. admitted that he ate more fruit
and vegetables instead of meat. A number of participants described how they changed their cooking methods in order to achieve a more plain diet (e.g., not eat deep-fried foods, or eat raw vegetables instead of frying). Mrs. A. explained how she kept a plain diet by changing cooking methods:

... we steam eggplants. After steaming eggplants, we can add soy sauce, vinegar, and sesame oil. That’s it. It’s very delicious. We fried eggplants before, needing a lot of oil. It’s too much, and it’s not good. Therefore, we found this way to cook it.

Mr. H. also described how he kept a plain diet when eating in restaurants:

The friends eating with me are old as me. So, we don’t look at the greasy dishes on the menu. We don’t order the greasy dishes. We order the dishes such as tofu, green vegetables, and fish, these healthier foods ... you can always pick up several healthy dishes from those greasy dishes on the menu.

Although most participants believed that having a plain diet was healthier for seniors, some of them complained that it was difficult to keep a plain diet. Taste is a main issue from the participants’ perspectives. Mrs. A. agreed: “Many interests [tastes] in diet will be less but you have no choices.” Mr. P. also spoke out his opinion:

For most people, having a plain diet is good, adding less salt. However, for me, I seldom follow the suggestions. It’s too plain to taste ... I cook it by adding salt, soy sauce, sugar, and MSG by myself.

However, some participants suggested how to eat delicious foods in a healthy way. Mr. H. expressed his experience:
You can buy the artificial crab meat...you chop the cabbage...raw one...after chopping [the cabbage], [you can] add some salad dressing, and then put the artificial crab meat inside, and that is a delicious salad.

Mrs. C. also spoke out:

Because of their [health care professionals] introduction, I find a lot of products that are appropriate for diabetics, ice cream, ice cream cone...chocolates, all kinds of biscuits, even gum [in grocery stores]. Therefore, I feel, although the diet for diabetics is restricted, if you like eating sweet foods, there are still many sweet foods that are appropriate for diabetics.

_Eating less refined foods._ “Eating less refined foods” was considered by some participants as eating a healthier diet. They emphasized that eating less refined grain products was necessary in seniors’ diet, such as white bread, flour, rice, or noodles. Mr. D. spoke out his opinion:

...we ate white bread before, and more white, better taste. Now, it promotes that not eat white bread, and [people] should eat whole wheat bread. As for noodles, [we] don’t eat white noodles or Shandong noodles, which are very white, not good. I eat buckwheat now.

In addition, some participants stated that people should not be fussy about the way of preparing food. For example, Mr. H. presented his opinion:

I believe that refined foods are not good for people’s health. I saw some people eating oranges...there are many white threads outside every piece of orange, and they [would] take that off...I feel it is very wasteful and unhealthy. That is the best part for us. When I cook by myself, I wash and cut the heads and roots [of
vegetables]. If they are not too hard to chew, I put them in the pot totally. I never peel fruit . . . I never peel apple, and just eat it directly. I feel, these kinds of foods . . . the fibre in [the] peel is better and more than that inside.

At the same time, they accepted that the coarse grains do not taste good, although they are healthy. Mr. H. spoke out: "Generally, people's favourite foods are not healthy. The delicious foods are not healthy. Comparably, the healthy foods are not delicious, such as whole wheat, oatmeal, and others." However, Mrs. C. expressed her successful experience of eating coarse grain products in Canada:

The black one [cake] is [made of] coarse grains. They [coarse grains] are chopped as small pieces. The scents inside [cakes] are plants from countryside, which are crushed and put in cakes. Also, carrot is crushed and put in cakes, and made as carrot cakes. There are other stuff inside, oil, milk, eggs, and a lot of other stuff . . . therefore, to me, a diabetic, when I choose coarse grains; I choose western cakes, fresh cakes from countryside.

In addition, some participants mentioned that this dietary opinion was different from the traditional dietary beliefs they previously had. In the past, they preferred eating those foods that tasted good whether they were considered healthy or not. Now they focus more on eating healthy foods than they do on delicious taste. They also stated that it is vital to have the willpower to keep an appropriate diet. Mr. J. emphasized: "We should decide what we could eat in consideration of our health. We cannot say, 'I like eating sugar and I eat a lot of sugar. . . .' It's not good for our health." Mrs. A. also echoed: "For seniors, our organs are degenerate. We cannot indulge ourselves; otherwise, we will have trouble."
Fitting physical needs. Although the three dietary opinions presented above were believed to be appropriate for seniors, a number of participants stated that seniors need to consider dietary choices that fit their individual physical characteristics. Mrs. A. spoke out her opinion:

Whether [the diet is] healthy or not, it depends on your physical status, whether it helps you digest well or not, whether it prevents [you] from developing chronic diseases or not, [if it works] which will be a healthy diet. Some believe that a plain diet is healthy, and others believe that a diet with high fat is healthy. I think we need to consider it individually. We cannot speak generally. Not all of the seniors need to have a plain diet.

In addition, Mr. T. evaluated healthy foods by his physical feelings:

In my opinion, I believe that after I eat something, I feel comfortable, and this food is healthy to me. However, if I eat something, it makes me uncomfortable, that is not good for me, and it's not healthy.

Mrs. S. agreed: “If it [food] is not appropriate to your body, you cannot eat it. Some types of melons are very cold, although they are good for my health; I prefer not to eat them.”

Mrs. C., who was a health care professional in China, also described her grandma’s dietary experience:

My grandma had been over 100 years old when she was dead. She preferred to have meat dishes every meal till she died. She refused to eat if there were no meat dishes . . . she ate two pieces of meat with fat every meal, streaky pork. If she didn’t eat the two pieces of meat on that day, she would have constipation . . . that
indicated that individuals had different genetic factors influencing the level of digesting cholesterol, and they had different genes.

Besides cultural conceptualization of an appropriate diet for seniors discussed above, the elderly Chinese participants also emphasized influences of some cultural values on their dietary practices, which originated from their lived experience.

*Cultural Values of Dietary Practices*

According to the interviewees, there were some cultural values significantly influencing the participants’ dietary practices. Understanding these values is necessary for health care professionals to provide effective nutrition programs and monitor Chinese seniors’ dietary practices successfully.

*Cu Cha Dan Fan.* “Cu Cha Dan Fan” is a Chinese proverb which translates in English to “Having a simple diet.” It was stated by many elderly participants, regardless of their socioeconomic status. Different from “Having a plain diet,” “Cu Cha Dan Fan” mostly emphasizes that individual should not have an extravagant diet or buy expensive foods. Mr. D. explained:

... they [some Chinese] buy shark’s fins or something like this. I said I didn’t want to buy it. It’s so expensive. It’s terrible to eat it. The abalone, a can of abalone is sold $80. I said I would not buy the abalone at all. I can buy the small one and cook soup. The taste is same. So, that is our opinions. Some people feel satisfied when they eat exotic foods. I don’t think it’s necessary.

Some participants have maintained this dietary habit for a long time and they believed that eating is just to make people full. Mrs. A. explained: “We didn’t have a luxurious and extravagant habit. ... We have had our habit for many years.” In addition,
others mentioned that having this dietary opinion was good for seniors with physical changes. Mrs. E. said: “For sure, keeping a simple diet will be fine. As seniors, we cannot eat so many kinds of foods. Seniors are easy to have some diseases, such as rheumatic diseases.”

However, several elderly participants stated that seniors do not need to follow this opinion seriously and it is necessary to have some “upper class” diets when considering one’s health. For instance, Mr. J. argued that:

If we have really paid attention to our health, why don’t we try [a] more delicious diet? Why do we still need to have a simple diet? In consideration of our health, we can enjoy some delicious foods such as lobster and sea cucumber.

Mr. H. echoed:

If you would like to have a longer life and reduce chronic diseases, you need to have a simple diet. However, the simple diet is not delicious. If you always eat like this, you lose interest. Sometimes you need to eat your favourite foods.

Mrs. C. agreed:

You need to have superior life experiences [having a meal in a superior restaurant], the environment in the restaurant . . . the elegant music . . . beautiful environment . . . all of that will impress you forever. Therefore, I think, everyday can be a simple day, but you still need a few perfect days. Then, you can feel the life is wonderful.

*Concerns of dietary acculturation.* Different from their counterparts in home and host countries, dietary acculturation is another significant factor influencing these Chinese participants’ dietary practices. According to Satia et al. (2001), dietary
aculturation is defined as the process by which minority groups adopt the food choices/patterns of the host country. Most participants acknowledged that they preferred a Chinese-style diet; however, all participants have changed their diet, in varying degrees, to a more Western style. The most common change was that they often ate a Western breakfast, which was found in other studies as well (e.g., Chau et al., 1990; Satia et al., 2000). For example, although Mr. H. expressed that he did not like Western-style diets, he ate a typical Western breakfast: “I eat oatmeal in the morning, then I cut half of a banana into slices, add some dried nuts and then put them in 1% milk; that is my breakfast. Also [I have] a cup of coffee.” Mrs. B. reported a similar dietary practice: “I eat two slices of bread in the morning, a glass of milk, [and] a little sausage. That is not the sausage in China. It’s very big. I add it in the bread; also, add some pickle in the bread.” Some participants reported that they ate snacks between meals, including crackers, yogurt, fruit, and nuts, as Mr. H. described: “There are several cans of almond and peanut on the table in my home. When I sit there and watch TV, if I want to bite something, I just eat it.”

In addition, some participants ate Western dishes (e.g., steak, turkey, and salad) on occasion, especially on holidays, such as Thanksgiving and Christmas. Mr. T. said:

Most time we eat salad, vegetable salad. Also, we eat turkey, very common. In Thanksgiving, we eat salad and turkey. We really like eating salad. We eat a lot of salad, and we really like it. It tastes very good.

Mr. D. agreed: “When Christmas came, at that time we had two turkeys. . . . In those two months, the sandwich we brought at noon was turkey, it’s very delicious.”
However, some participants expressed that they preferred eating salad and it was because eating raw vegetables was healthy, and they did not consider that was a Western-style dish. Mr. H. pointed out: “It’s better to eat raw [vegetables]. There are so many vitamins in raw vegetables. If you heat it, [the nutrition] will be destroyed, and there is nothing.” Mrs. A. echoed: “For some vegetables, if they don’t need to be cooked by oil, we try not to fry them. The lettuce. . . [When we ate it] we dipped the sauce before; now, we just eat it directly without dipping sauce."

Also, some of them reported that they used Western-style seasonings (e.g., salad dressing and vanilla vinegar mentioned in the interviews) when they cooked at home, which was considered as dietary acculturation as well. Mrs. C. said:

We continue to buy western [style] seasonings, [and] I call it ‘Western-Chinese cooking.’ Maybe we use Chinese cooking methods, but the seasonings used are Western [style] ones. . . I use Western [style] mustard powder, milk, [and] pepper powder. . . to marinade raw lamb pieces. The Western people may [cook lamb] using oven, but I use pan. I stir fry lamb, and put it in a plate, having vegetables underneath, such as caraway. . . the lamb tastes like [a] Western-style [dish] . . . It tastes very good, very delicious.

Moreover, different from other participants, who prefer a typical Chinese-style diet or a Western-style diet, a few participants stated that they have a varied-style diet at home, including Chinese-style, Western-style, and other style diets. Mr. J. said: “For me, I would like to try cooking different dishes in the world. At the same time, I do some research on diets, no matter a Canadian diet, Indian diet, or Singapore diet.” Mr. D. had similar experiences:
We learned from her [his daughter’s roommate, from Italia] how to cook Italian dishes, and then we knew [how to cook] one or two Italian dishes. Communicate with each other, just like this. We also learned how to cook Greece dishes. For Middle Eastern [style] or Western [style] dishes, we also learned a little bit.

Living in Canada provides the participants with the opportunity to compare and contrast Chinese- and Western-style diets. Compared with Western-style diets, traditional Chinese-style diets were believed time-consuming and not healthy by a few participants. For example, Mr. D. had some complaints about traditional Chinese-style diets:

[The Chinese] spend too much time on their diets, and it wastes time. As for diets, we can eat simply... It’s very easy to make salad and it’s healthy... The Chinese foods taste very good, such as Jin Hua ham... [but] it’s not good for our health... there’s so much saltpetre [sodium nitrate] inside... If we want to eat sausage, we just eat Western [style] sausage.

However, other participants did not like Western-style diets because these diets did not fit their dietary habits. Mrs. B. described: “The Western-style foods are not good to eat... they serve salt and vinegar, and you just dip and eat it. Our Chinese dishes are cooked very well, very delicious.” Mrs. A. also spoke out her opinion:

Our kids would like to eat Western [style] foods, such as fast foods. I feel the foods are less nutritional and unsafe. However, they really want to eat. Sometimes... they eat the foods in KFC but I don’t eat at all.

According to the interviewees in this study, the degree of acculturation discussed in the reviewed studies (e.g., gender, English competency, educational level, and length of residency) might not influence their dietary practices. For example, Mr. H., who had
studied and worked in Canada for 37 years and spoke English fluently, spoke out his opinion:

I don’t like eating Western [style] dishes, and they are not very good. They are neither cheap nor delicious, and also they are greasy. The cooking method of Western [style] dishes is very greasy.

In addition, the participants often questioned whether or not it was necessary for them to adopt Western-style diets when living in Canada. Some of them believed that dietary acculturation was an important way to adapt to the host country, as Mr. D. advocated: “It’s because when you decide to live in this country, you need to [become] involve[d] in this society. . . . You need to adapt [to] Western-style diets.” However, other participants disagreed. Mr. H. said: “The nutrition from a Western-style diet is [the] same as that in a Chinese-style diet. . . . It’s not necessary to change your dietary behaviours totally.” Mr. J. also endorsed it:

Canada is a country with multiple ethnic groups. At the same time, it’s a multicultural society. It doesn’t advocate that one ethnic group adapts [to] another one. Also, the products in Canada are abundant, and every ethnic group can find and eat their favourite foods. It’s not necessary to force them to adapt [to] a Western-style diet.

Although they generally preferred to choose their traditional favourite-style diet, all participants acknowledged that they had to choose Western-style diets in some situations where traditional Chinese foods were not available, especially in hospital. Mrs. A. pointed out: “For me, I don’t like eating Western-style foods. [However,] When I am in the hospital, I have to eat the Western-style foods. . . . Otherwise, what can I do? The
environment cannot be changed. This is a huge issue among the Chinese.” Mrs. S. recalled of her experience in hospital: “I was still hungry after every meal, no meat, no Fan [grain products] . . . really hard. For our Chinese, we don’t feel full until we eat Fan.”

*Childhood dietary habits and long-term dietary beliefs.* From some participants’ perspectives, “Childhood dietary habits” was a significant factor influencing their present dietary practices, with the participants also stating that it was difficult to change these childhood dietary habits. In addition, parents play a significant role on helping their children have a healthy diet. Mrs. C. described her childhood experience:

When I was young, I lived in an upper class family and I had a habit of eating refined foods. Even now, it’s still difficult for me to eat coarse grains. . . . My stomach becomes uncomfortable after I eat these foods.

Mr. H. agreed:

If you were spoiled when you were young and your parents always fed you the best foods, when you grow up, you cannot stand a simple diet . . . If you want to change the bad childhood dietary habits, it’s really difficult; no way . . . Therefore, parents are important as well in their children’s dietary habits.

Interestingly, Mrs. S. expressed the influences of her childhood dietary experience on her current dietary practices, which was different from others:

When I was very young, I moved to Japan with my family. There was nothing to eat . . . we had to eat sweet potatoes every day and I cannot stand it anymore. . . . Now, I cannot eat it, even [I cannot stand] its smell. Actually, the sweet potato is
good for my health, and I really want to try [to eat] it sometimes. However, I cannot stand it.

From the participants’ perspectives, “Long-term dietary beliefs” was another significant factor influencing the participants’ dietary practices. First, considering individuals’ dietary preference was a common dietary belief, as Mrs. B. described: “For me, I just eat what I would like to eat. I don’t think about whether it’s healthy or not. If I like it, I just eat.” Mrs. A. also spoke out her opinion:

I don’t think a person will be full without eating vegetables. In addition, excretion will be a problem without eating vegetables. [Eating] vegetables is very important for Chinese, and we eat more vegetables than Canadian people. This is my habit for a long time.

Second, long-term chronic diseases experience also influenced their dietary practices, as Mrs. B. expressed:

I know what kind of foods I can eat, I know that. I cannot eat sugar, even when I cook dishes. . . . The main point is that you need to control your diet. . . . Which foods can cause high blood sugar, which foods cannot, 30 years, I know my own situation.

Third, some traditional unhealthy dietary beliefs significantly influenced their dietary practices in terms of the participants. Mr. D. recalled his previous dietary experiences:

Now, when I think about that [our diets before], I feel a little bit pity: eating too much flour [white flour] makes my kids so fat. At that time, we didn’t have this idea. . . . Chinese believed that being fat was good. Now, it’s not good anymore . . . it’s not right to eat more.
When their dietary preference or values had conflicts with the healthy food choices; however, some participants stated that they can change their preference, as Mrs. A. spoke out:

We ate something before. If we think [that] we need to change that habit, we can change it. You cannot indulge yourself, and you need consider it in terms of your health. We can change.

Finally, some participants believed that lack of access to ‘modern’ health information prevented Chinese seniors from recognizing the unhealthy dietary beliefs. In addition, some of them stated that having a low educational level may be a significant reason. Mr. H. described:

The common families . . . believed that meat and fish were good [for kids.] [At that time] if you can eat meat and fish [every day], that means your family is very rich. The poor family cannot [eat meat frequently]. Now . . . you cannot say “eating meat and fish” is healthy and good. The international students, such as us, are modern, and the knowledge we got is new as well. There is no problem for us [to provide healthy foods] to our kids. However, the people are at the same age as us, if they don’t have the same educational level as we do, the way they feed their kids will be different from ours. They will follow the way that their parents eat, and have this [wrong] habit.

Therefore, these childhood dietary habits and long-term dietary beliefs may significantly affect Chinese seniors’ willingness to adopt contemporary health knowledge and change their dietary practices, particularly for those Chinese seniors who have difficulty in accessing updated health information.
Summary

This section demonstrated on complex and varied dietary beliefs and values among the elderly Chinese participants. Based on understanding the health information gained, the participants presented their opinions when considering what constitutes an appropriate diet for seniors: keeping a balanced diet, having a plain diet, eating less refined foods, and fitting physical needs. However, the participants acknowledged that they did not always follow the health suggestions. There were also varied cultural values found influencing these seniors’ dietary practices. The belief of “Cu Cha Dan Fan” was common, with the participants preferring not to spend much money on their diet. Also, it was found that childhood dietary habits and long-term dietary beliefs affected their dietary practices, and it was not easy to change these habits. Dietary acculturation influenced the participants’ dietary practices in this study. Although these elderly participants had a mixed diet of Western-style and traditional Chinese-style, most participants preferred a Chinese-style diet over a Western-style diet. For some of them, it was difficult to adopt a Western-style diet. However, all participants acknowledged that they had to eat a Western-style diet in specific situations.

Besides the influences of cultural beliefs discussed, the elderly participants also reported the effects of family members, friends, and health care professionals and services on their dietary practices, which are discussed in the next section.

Influences of Family Members, Peers, and Health Care Professionals and Services

Kleinman (1978) stated that there are three explanatory models which need to be considered when providing culturally appropriate health consultation: the popular, professional, and folk sectors, all of which influence individuals’ beliefs and behaviours.
significantly. Also, Green et al. (1980, 1991) emphasized reinforcing factors, providing incentive for individuals’ behaviours which can be described as attitudes of family members, friends, and health care professionals. Therefore, it was important to explore the influences of peers, health care professionals and services, and family members on the participants’ dietary practices.

All participants stated that it is necessary to learn more health information because there may be more possibilities to have physical problems with aging. In particular, they discussed the content of health information required and barriers to gaining health information from current health care services.

_Influences of Health Care Professionals and Services_

_Needs to gain health information._ The elderly Chinese participants paid more attention to gain the information of healthy diets and nutrition when they or their spouses had physical problems, such as high blood sugar or hypertension. In addition, some participants mentioned that they had more time to pay attention to their health when they become old. Mrs. A. confirmed this opinion: “After we retired, we began to pay attention to our personal health, such as wellness and seniors . . . we really pay attention to collect this kind of information.” Mrs. C. also addressed the needs of learning health information: “Seniors need this kind of knowledge [health information]. When you become old, you still need to study. Isn’t it a good idea to learn something that is good for your health, is it?” Mr. J. also echoed: “. . . my knowledge is limited and I need to learn from these kinds of programs [on TV].”
With respect to the content of health information, the participants had different opinions. Many of them advised that acquiring health knowledge should depend upon individuals’ health care needs. Mrs. A. spoke out:

It’s up to your personal status . . . according to your own [health] status, what kind of health problems you have; and you pay attention to this part, and then try to conquer it . . . I don’t like getting the general information about diet. [It’s not] impressive when you just get general information.

Mr. T. agreed: “We attend health care programs. The members in our group ask questions about their own health problems . . . the specialists told them what they need to do next.”

Also, some participants stated that medication information should be considered. Mr. P. said:

Every senior has to take some medication. When they take medication, they have to understand how to take medication carefully -- before a meal, after a meal, or . . . otherwise, you cannot undo it . . . you need to take medication properly.

Besides gaining Western health information, many participants considered traditional Chinese medicine knowledge in improving their dietary practices as well. Mrs. A. viewed her dietary behaviours according to traditional Chinese medicine knowledge:

“There are so many kinds of vegetables available. Winter melon can remove humidness in terms of Chinese traditional medicine. [And] bitter gourd is good for [controlling] diabetes.” Mr. D. also considered traditional Chinese beliefs when choosing appropriate foods: “For example, green bean, if you have hypertension or high blood sugar, you drink green bean soup, and your blood sugar will go down.”
Finally, others reported that it was necessary to learn about updated health information. As Mr. J. expressed: "Being a patient, we really want to cure the disease totally and get free. We need to know its development, know the updated information, then; we can talk to our family doctor..."

**Varied sources of gaining health information.** According to the interviewees, there were varied sources from which to obtain health information about healthy diet and nutrition, including friends, media (e.g., TV and radio), books and magazines on health and nutrition, health care programs, and health care professionals. A few participants also access internet to gain health information. Only few participants gained health information from their children, and this may be because most of them did not live with their children.

According to the interviewees, self-learning was important to obtain health information, and most participants gained health information by listening to the radio, watching TV, and searching internet. Mrs. E. described:

Today, I listened to the radio... [the program] introduced [a recipe for controlling high cholesterol], including a little lean meat, wood ear mushrooms... 5 or 6 dates, [and] several pieces of ginger... One process lasts 25 days. After one process... you go to the clinic to have a blood test and see the cholesterol becomes lower or not...

Media is an important way to access health information among the elderly participants, especially the seniors who have limited social activities. Therefore, some participants advised that media should provide healthy programs, instead of commercialized programs that aim to attract people's attention. Mr. H. spoke out:
There are many TV programs now... it teaches people how to cook Chinese dishes... It’s terrible. [The cookers] put a big spoon of oil into the pan... and stir fry [vegetables]. The whole spoon... isn’t terrible, is it? So, it tells people a wrong opinion. Of course, the dishes are the most delicious by [cooking] this way; however, it’s not good, not healthy, So, I believe that this kind of programs should be revised and teaches people how [to cook] using less oil.

In addition, many participants gained health information by sharing with their friends. For example, Mrs. A. spoke out: “Someone introduces us, or brings printed materials, and we share with each other. This is the way by which I get information.” Mr. D. also expressed: “I talk to others. We [can] get suggestions from others. When I walk along with two others, they may serve as my teachers [San Ren Xing Bi You Wo Shi in Chinese].”

According to the interviewees, attending the health care programs in Chinese communities and gaining health information from health care professionals (e.g., family physicians, specialists, and other staff in community health services) were also another important way to improve their dietary practices following self-learning and peer-learning. However, the participants had different comments about the current health care programs provided by health care institutions in Canada. Some participants (especially who can speak in Cantonese) believed that attending these health care programs was important to obtain health information, as Mr. P. described:

I have no idea about that [the information of healthy diets and nutrition].

However, I learn from the staff in the region. They say that we need to eat every kind of foods... don’t eat too much, no matter it’s delicious or not; don’t eat fat
foods; don’t eat hard foods, which will hurt your stomach…they introduce very clearly.

Mr. T. also agreed:

There are all kinds of health care programs in the centre, such as the programs about diabetes, osteoporosis. . . . There are fliers on the blackboard. If you need it, you just attend it. They invite specialists to present. . . . Also, we can ask questions anytime. When we ask them [the specialists], they tell us what we need to do and how to do.

Mrs. C. also reported learning how to read food labels when attending the programs: “I learn [how to read food labels] at that time, the centre informs me to learn it, including how to recognize the introduction on foods.”

However, other participants had opposite opinions about these health services. Mr. D. spoke out:

I attended [the health program] once, and I felt [that] I knew much more than what they knew. [They just talk about] calculate the amount [of food], such as a piece of meat . . . [and] you need to eat a little bit in the three meals every day.

Mrs. C. also pointed out that the current content of health care programs should be more diverse to meet Chinese seniors’ different health needs:

At present, the nurses and dieticians [in Canada] just focus on diabetes instead of other diseases. . . . Each disease requires different diets. The seniors really need to know the nutritional information to have a long life even though they don’t have any diseases. They [health care professionals] seldom talk about it . . .
It is important to note that some participants did not always follow the health suggestions from health care professionals because of several reasons. The health suggestions had conflicts with their dietary preferences was a main reason, which is discussed in “Cultural beliefs” section. In addition, some participants believed that health suggestions were not appropriate to their health needs. Mrs. B. said:

He [the nurse] said that I needed to take two pills in the morning, half a pill in the evening, and one pill at noon. He suggests me to adjust the medicine. I take half a pill in the evening but it doesn’t work, and my blood sugar is super high. So, I adjust [it and] take one by myself.

Many participants further discussed the barriers to obtaining health information from health care programs and health care professionals in Canada. Language barriers, including both English and Chinese dialects, were a main issue among the elderly Chinese participants, especially those speaking Mandarin. Mrs. B. expressed: “I never attend the [health care] programs because they speak in Cantonese.” Also, Mrs. A. described her experience:

We just feel it’s a little difficult to see doctor... I have to check [my English] dictionary about the words related to my health problems before I go to his office. After I finish expressing my health problems, I cannot express any more. He [her family physician] also tries his best to find simple words to communicate with me... sometimes, it affects [the] communication.

Mr. H. agreed:

There are such programs [health care programs in English] in the city. You can attend the programs anytime, [and] get materials in English. However... if you
have problems with your English, it will be worse when you attend the specific program [health care programs] because there are many academic terms [in English], and you cannot understand at all.

From the participants’ perspectives, lack of health care professionals or services in Mandarin should be considered by Canadian health care institutions. Mrs. C. pointed out: “There are not enough specialists who speak in Mandarin. So far, I know there are just two specialists who speak in Mandarin. . .”

Another kind of language barriers, inappropriate written health materials in Chinese, was also discussed by some participants, as Mrs. S. described:

I got some health information and it’s [a] Chinese version, but I feel the translation is not appropriate. When I read the Chinese version of health information, I cannot understand what it is talking about.

Finally, inconvenience was another important factor influencing the participants on attending health care programs, including physical disabilities, and schedule and parking issues. Mr. J. expressed:

Sometimes, I really want to attend these [health care] programs [in Chinatown]. However, it’s always because of schedule issues. Also, I don’t buy bus tickets at that time. It’s difficult to park in Chinatown. So, I never attend these programs.

Evaluating health information gained. The elderly Chinese participants had varied sources to access health information. However, many of them complained that there was so much confusing and conflicting health information. Mr. H. felt there is “. . . too much information that misleads people. If you follow the health information totally, you will be mad. There is too much information, too complicated, without scientific foundation.”
Therefore, they stated that it is necessary for seniors to be selective of the health information, including both Western health information and traditional Chinese medical knowledge. For example, Mr. J. spoke out: “You need to have the ability to filter the information you get, which is right, which is scientific, you need to identify.” Some participants reported that fitting their physical needs was a main way to evaluate the health information, as Mr. T. described: “There are some programs introducing the [health] information on radio... we follow these recipes and try [to see] whether it’s good or not... if it’s good for us [our health], we make it regularly.” In addition, some participants believed that not all Chinese seniors had the ability to identify appropriate health information, and different educational levels were believed as a significant factor to identify appropriate health information. Mrs. S. spoke out:

Having a high educational level will improve your diet. Why? It is because... knowledge helps you understand everything. You know how to arrange the foods. Not like someone, ‘Oh, I don’t know what I should eat. I eat what I have.’ You will analyze the foods [you eat]. Beef is good but eating more beef will result in more uric acid, so, I don’t eat it.

Mr. H. also agreed:

... many of them [Chinese seniors] don’t have a high educational level. If it’s [educational level] not very high, they have no clear ideas about nutrition. The old opinion believed that fish, meat, flour, or rice, these foods with high calorie were nutritional. If these seniors don’t learn modern scientific knowledge [to identify]... what is nutrition? is this kind of nutrition appropriate to you or not? They have no idea.
Therefore, helping Chinese seniors with identifying appropriate health information should be considered by health care professionals, from some participants’ perspectives. Mr. H. spoke out:

I wish there [are] some research institutions. They [could] collect these ideas or opinions from the seniors and do some research studies to identify whether it [traditional Chinese medicine knowledge] is correct or not. After filtering the information, they can spread the updated information to the population, and guide the population. You cannot accept the traditional Chinese health knowledge totally.

*Consideration of Family Members’ Dietary Needs*

“Consideration of family members’ dietary needs” was addressed in most participants’ dietary practices. Family members included their spouses, children, and grandchildren in this research study. Most participants live with their spouses; therefore, consideration of spouses’ dietary needs was common among the participants. For example, Mrs. A. said: “He [her husband] eats bitter gourds. I cook bitter gourds and yam for him, which are his foods.” However, when they lived with their children or when their children visited them, their children’s dietary needs were given priority. Mrs. B. mentioned: “If my daughter doesn’t come to eat, we just eat some noodles, dumplings, or won ton soup. . . . She doesn’t come, and I don’t cook rice and dishes. For us, we eat very simply.” Mr. T. also addressed that he needed to prepare different foods for his grandchildren: “For these kids. . . they like deep-fried foods, very crisp, good taste. But we as seniors don’t like these deep-fried foods, and we prefer plain foods.”
Besides preparing specific foods for family members to meet their dietary needs or preferences, "Consideration of family members' dietary needs" also included changing the diet in the whole family to meet family members' health needs. Mrs. A. spoke out:

Our diet is even simpler, compared with common seniors' diet. It's because my husband has some diseases, [such as] diabetes, hypertension, and gout . . . . Even cooking meat, I have to put meat in the water for two hours before I cook it . . .

Basically, we eat pork and different kinds of vegetables. We seldom eat eggs. His cholesterol is high.

Significance of Social Activity to Have a Meal with Others

Besides sharing health information with their friends, having a meal with other seniors was an important social activity among the participants, which influenced their dietary practices significantly. In detail, it included having pot luck meals, inviting friends to have a meal at home or in restaurants, drinking tea regularly, and arranging parties on special days (e.g., birthdays or holidays). Chinese culture is food-oriented, with food playing an important role in people's social lives (Simoons, 1991). In this research, mostly the participants had a meal with their elderly friends instead of their children. Mr. P. explained: "It's impossible that the whole family can eat outside together every day. The young people [their children] are very busy. Eating with other seniors as a group is better."

The elderly Chinese participants really enjoyed this kind of social activity as they can chat, eat, and have fun together. Mrs. A. gave an example:
We come here [to the centre] and have a birthday party every quarter. Everyone brings one dish and we sing. We [feel] really happy. We don’t need to spend so much money. The purpose of meeting together is to be happy.

In particular, some participants mentioned that they enjoyed drinking tea in Chinese restaurants in Chinatown with other Chinese seniors because it was easy to access, reasonable price, and variety of foods. Mr. P. described: “Every Wednesday, we go to drink tea together after the meet, around 12pm. Every one just needs to pay 6 or 7 dollars at most. We share the expense. Not a big deal.” Similarly, Mr. T. spoke out: “The seniors [in this group] . . . prefer to eat. We often drink tea in restaurants . . . we have same opinions. So, we can communicate very well, and we live very happy.”

Although eating with other seniors was very important in the participants’ lives, some of them found that there were some conflicts between eating with others and keeping a healthy diet. For example, Mr. H. mentioned:

I have a party every 2 or 3 days, not the formal party, but some friends eat together. Then, after 3 days’ eating, the calorie [count] is really high. I know that, but sometimes it’s a feeling of following others, you have no choices, you cannot say, ‘I don’t want to go there. [I’ll] just eat in this restaurant.’ You cannot do that.

So, you cannot control in this context. It’s easy to follow others.

To reduce these kinds of conflicts, some participants implemented several methods, which include eating homemade foods, attending parties less frequently, choosing appropriate dishes in restaurants, and taking medication after eating. For example, Mr. J. mentioned: “I told them [his friends] that we eat in restaurants too frequently, and we can
eat at home. For some friends, we decide[d] not to eat outside [and rather] drink tea at home, chatting with each other.” Also, Mrs. A. expressed:

Actually, there are so many elderly Chinese here. They go to drink tea in restaurants every Tuesday and Friday. I join in them a few times but I don’t think the foods are good. There are so many deep-fried foods. . . . Instead, we like potluck, and everyone brings something cooked by themselves. The foods cooked at home are better than [the foods outside].

Mrs. E. also echoed:

If we eat outside, there are so many dishes. There are several foods I can eat, such as chicken and pork. If I can eat [the food], I eat a little bit. If I cannot eat . . . I cannot eat seafood, so, I don’t eat it when I eat outside with them.

Summary

The elderly Chinese participants would like to get health knowledge to keep them healthy when they become old, and the information of healthy diets is mostly addressed. Therefore, understanding the Chinese seniors’ health concerns is necessary to provide effective health consultation. There were varied sources that they can gain health information, and self-learning and peer-learning were the most common way to obtain health information. Health care professionals and services provided health information and influenced some elderly participants on improving their dietary practices, especially the seniors speaking Cantonese. The elderly Chinese participants speaking Mandarin seldom gain health information from current health care professionals and services. Besides language barriers, inconvenience and inappropriate content were also important reasons that the participants did not access current health programs. Many participants
stated that they had to evaluate the health information gained and not all Chinese seniors had the ability to evaluate the information. Low educational levels were believed as a main barrier to evaluating the appropriate health information.

In addition, family members and peers influenced the participants’ dietary practices directly. The participants presented that they needed to prepare specific foods to meet family members’ health needs, and the dietary needs of children were considered first. Moreover, eating with elderly friends was a common social activity in their lives, which may influence them on choosing a healthy diet.

Besides the influences of other people on their dietary practices, other factors, such as biological changes, psychological health, financial issues, and accessibility and availability of traditional Chinese foods, also significantly affected having a healthy diet. We explored these factors below.

**Biological Changes, Psychological Health, Accessibility and Availability of Traditional Chinese Foods, and Financial Issues**

Besides cultural beliefs and others’ attitudes which influence their dietary practices significantly, the participants’ biological changes, psychological health, and consideration of foods influenced their dietary practices as well. In addition, some female participants addressed financial issues. All of these factors can be discussed as “enabling factors” as presented in the studies of Green and his colleagues (1980, 1991). Enabling factors are resources by which individuals’ behaviours can be realized (Green et al., 1980). According to Satia’s studies (2000, 2001, 2002) and Kristal et al. (1995), enabling factors can be considered as perceived barriers and norms, both of which could affect the access of a healthy diet.
This section reported four main categories of factors influencing the participants' dietary practices: biological changes, psychological health, accessibility and availability of traditional Chinese foods, and financial issues. Biological changes played a significant role in the participants' dietary practices in this research study. The participants felt that they had to change their diets because of aging and physical problems. In addition, biological changes affected their abilities to cook and shop for foods. Keeping psychological health was also addressed in seeking a healthy diet and lifestyle by most participants. Accessibility and availability of traditional Chinese foods were also significant factors influencing the participants' dietary choices. Finally, most participants were able to achieve an economical food budget and some female participants paid attention to financial issues in their dietary practices.

*Biological Changes Influencing Chinese Seniors' Dietary Practices*

From the participants' perspectives, biological changes were the most important factor influencing their dietary practices. Most participants noted that they had to change their diet in terms of aging and changed physical status. With aging, their appetites have diminished and they eat less. Mrs. B. explained it in detail:

> When I am old, I would not like to eat anything, don't like so much. I don't know why, I think it's because I am old. When I was young, I felt this tasted good, and I would like to eat everything. Now, I don't want to eat anymore.

In addition, they believed that it was necessary to have an appropriate diet for seniors when they are old in order to keep healthy. Mr. H. noted:

> When I was young, I could eat everything. At that time, we paid more attention to how we have enough energy to study . . . to make sure we have enough energy
[when eating foods]. We never paid attention to the weight or other issues. At that time, we ate bread, meat, and eggs – everything. However, when we became older and older, we will pay more attention to our health. We will pay attention to whether we have arthritis, diabetes, and [high] cholesterol, the cholesterol issue.

Mr. P. agreed: “Don’t eat too full. I don’t eat so full now. If I eat rice, I just eat the amount like my fist. In the past, when I was hungry, I ate a lot.”

Changed physical status was another significant factor considered by other participants in this research study. Mrs. A. said: “No other factors influence it [diet] except our body. The only thing we need to consider is our body, whether we can eat this or that.” Mr. D. controlled the amount of foods he ate according to blood glucose level:

I eat little amount[s] of food but eat several times per day. I am not a diabetic [but] my blood sugar is a little high, about 6. If it’s 6, we really need to pay attention to what we eat.

Also, Mr. T. changed cooking methods to match his current physical status:

For seniors, we cannot eat hard foods. We prefer the foods that are easy to chew because of our teeth problems. For example, when we cook our favourite dishes, we cook a little bit longer, and make them easy to chew.

Chronic diseases also affected their diets significantly according to many interviewees. Mrs. E. addressed: “I want to eat more . . . Western-style dishes, but I cannot. I prefer to eat pizza but I cannot eat now. I cannot. I need to follow the doctors’ suggestions. I cannot choose whatever I want.”

Biological changes not only affected the participants’ current diet, but also influenced related dietary practices. Some female participants mentioned diminished
abilities in performing dietary practices such as cooking and buying groceries. Mrs. S. felt that she had difficulties with cooking: "Sometimes, I cook food for two days. I cook once and eat for two days. I cannot stay in the kitchen for a long time [as] that will be so [tiring]. My feet are so tired after cooking." Mrs. B. also reported another issue: "It's my daughter who buys groceries and sends to my home. If I buy groceries by myself, I have to take the C-Train. I need to push a cart, and I don't have enough energy." Mrs. E. echoed: "If I feel good, I go anywhere to buy groceries, where the groceries are cheaper. If I feel not very well, the farthest place I go is [the store] downstairs."

Although not all participants currently had difficulties with cooking and buying groceries, all of them believed that they would face these issues with aging. Mr. H. stated: "If you can walk independently, buying groceries and cooking will not be a problem. That's not a problem. If you cannot walk or go outside, that will be a problem."

Mrs. A. also had this concern:

In the future, if we cannot walk, what should we do? Now, you can see some seniors moving downtown or to some [accessible] locations . . . After several years, if you interview us again, this issue will become more serious. Now, it's not very serious, and we can do [it] by ourselves.

Mrs. C. also discussed the Meals-on-Wheels service in Canada:

There is a kind of Meals-on-Wheels service. . . . which is what I see in the senior[s'] apartment. This kind of meal cannot be [as] good as their previous diet, according to their dietary habits. For seniors, they will feel that the quality of this kind of meal is worse than what they cooked by themselves before or what they ate with friends outside. That is their current issue.
The Influences of Psychological Health

According to the literature review, ethnic elderly population more easily have poor mental health, which may result in low nutritional intake, compared with their Caucasian counterparts. Most participants in this study also addressed the importance of keeping psychological health in their lives. Mr. J. spoke out his opinion: "We need to be happy. We cannot always consider little things seriously and always feel so bad. We need to do our best to have a calm emotion." Similarly, Mr. P. pointed out:

You need to do your best to make [yourself] happy. Some seniors worry about [things] too much, and we will tell them in English, "Don’t worry, don’t worry, take easy." Therefore, when I attend activities outside, I will not pay attention to the unhappiness at home.

In particular, Mr. H. explained the relationship between diet and being happy: "You eat healthy foods, and you will have a healthy body. [Then] you will be happy. So, the relationship between happiness and a healthy body is like the relationship between egg and chicken." Mrs. C. also described:

He [her husband] likes eating everything I cook. He thinks that our diet is always changing toward a scientific and healthy direction. Diet plays a significant role in keeping people happy . . . diet is a criterion of improving the quality of life. . .

On the other hand, some participants stated that eating with others can increase their appetite because they feel happy. Mr. P. described: "Sometimes, when we [the Chinese seniors] finish chatting [in the centre], we go to drink tea together. We can eat more when we eat with others outside [of our homes]."
From some participants' perspectives, being happy should be more important when there are conflicts between keeping a healthy diet and being happy. Mr. H. explained: "You don't need to follow [the] rules [healthy dietary beliefs] exactly. Otherwise, you will be unhappy, which will result in more problems than having an unhealthy diet." Mrs. C. also provided an example of her grandma:

If we change her 100-year dietary habit [eating fat meat], she will be very suffering. It's because [she is old], she could not travel. The only interest is eating. She needs to enjoy every meal, and eats happily. That is her only interest.

During the interviews, the participants also mentioned the varied reasons that made Chinese seniors unhappy. Understanding these reasons may be necessary to provide effective consultation with the Chinese seniors on their nutrition and health. These included conflicts with their children, feeling lonely, having diseases, and having a lack of support. Conflicting with children was a common reason cited by many participants. Mrs. A. spoke out her opinion:

Some of them [Chinese seniors] cannot get along with their children. When the seniors live with their children, [they need to realize] the children are in charge of everything at home. They [the children] cannot stand [to be complained by their parents]. Nobody would like others to complain [about] him/her every day.

Lack of support was another important reason. Mrs. S. complained: "For me, how can I be optimistic? My home is so dirty, and nobody helps me clean it. I feel so tired when I clean by myself." Mrs. E. also addressed how having diseases influenced seniors' psychological status: "I would like to [be in a good mood]; however, I have no choice because of my diseases." Feeling lonely was another significant factor, as Mr. P. said:
“To be honest, when couples become old, it is easy for them to quarrel. My wife always quarrels with me at home. I know the main problem is that our kids are not with us. We feel bored now.”

Since psychological health plays a significant role in improving the elderly Chinese participants’ dietary practices, learning their understanding of psychological health and their difficulties in keeping psychological health may help health care professionals consult with them effectively when providing nutrition and healthy diet programs.

*Accessibility and Availability of Traditional Chinese Foods*

Accessibility and availability of traditional Chinese foods were addressed by the participants significantly. During the interviews, most of them stated traditional Chinese foods in Canada were very accessible and available. There were no language barriers when they bought groceries, even though their English was not good. Mrs. C. provided an example: “You don’t need to talk when you buy groceries in the supermarket. You pick up what you want. Everyone knows the simple numbers . . . .” They also used body language when asking for help, as Mr. T. said:

I go to Co-op or Safeway. I prefer to buy chicken wings there. I don’t know how to say “chicken wings” in English. So, I ask the staff [at Co-op] and show him. [*The participant waves his arms like chicken wings and makes a chicken’s voice “gugugu”.] The staff is so smart and he helps us find chicken wings. It’s no problem if you don’t know English.

Also, they can buy groceries in Chinese grocery stores. Mrs. A. spoke out:
There are so many people who are illiterate; much less speak in English. They can also buy groceries. If they don’t understand, they can go to Chinese stores. You can see how much it is, then pay for it, and that’s it. As long as you know how to pay for it, you will not have problems.

During the interviews, all participants except for one female senior stated that there are no difficulties with buying groceries. Most of them bought groceries by themselves, and others got support from their friends or children. Mrs. C. reported: “The vegetables are very fresh in the small Chinese grocery stores downtown. It’s not a problem if you can walk for a few minutes. They are very close to where you live. The foods are adequate.” Mrs. A. also expressed: “There are so many Superstores in Calgary. Basically, we go to the Superstore in southern Calgary . . . we come back by pushing a small cart. It’s very convenient to buy groceries.” Mrs. E. noted: “There are over 800 church mates in our church. Some of them don’t need to work and they take care of kids at home. They help me buy groceries or drive me to buy groceries.”

Traditional Chinese foods are abundant in Canada from the interviewees’ perspectives. There are not only many Chinese grocery stores, but also traditional Chinese products available in Western grocery stores. Mr. T. pointed out: “Mostly, when we go to buy groceries, we go to some stores where we can find [traditional] Chinese foods. [For example, at] Superstore, there is a counter where [traditional] Chinese foods are available.” Mrs. A. agreed:

There are so many kinds of vegetables [in Canada], such as naked oats . . . lettuces, carrots, cucumbers, canola plants, cabbages, Chinese leaves, kales, broccolis, cauliflowers, and tomatoes. There are enough vegetables available for
your daily diet. It is very abundant. I feel that living in Canada is very well and comfortable.

In addition, some participants stated that it is more convenient to access Chinese groceries now, compared to the past. Mr. H. noted:

The current Chinese immigrants are very lucky. When we came here, we could not find spices in common grocery stores. We had to mail order. Now, we can buy Eastern spices everywhere—Superstore, Safeway, and others. We can find them in every grocery store. In the past, that was really a problem. What we could buy were green onion, ginger, and garlic. You could not buy soy sauce either . . .

Although traditional Chinese foods are abundant and accessible in Canada, some female participants also paid attention to the quality of foods, including taste, freshness, and safety issues. Compared with the foods served in China, they believed that the taste of food was not good and there were always frozen foods available in Canada. Mrs. A. mentioned: “Chicken doesn’t taste good; basically, we seldom cook.” Also, Mrs. B. complained:

I really like eating meat in China. Now, I come here, and the foods taste not good here. They have the same taste, [which is] fishy so much. It tastes not good. I add cooking wine and soy sauce, and it still tastes not good. So, I would not like to eat.

They complained about these issues, however, they had to choose the foods. Mrs. S. said: “You have no choice, although they are frozen, you have to eat, no choice. Although you know the foods taste not very good here but you have no other choice. You have to buy it and eat it.”
Also, some female participants considered safety issues. Mrs. A. stated:

There are so many people making fake products [in China]. For example, in order to fit the needs of customs, the colour of the foods can be made redder and the taste can be made better, more scent, and look better. The foods in Canada [are not] made in this way. I believe the foods are safe.

Compared with their female counterparts, the male Chinese participants were concerned very little about the quality of foods. Mr. J. stated: “I don’t think about these parts. I don’t care because I can adapt [to] different kinds of foods. As long as I can cook it, I will eat it. For me, it doesn’t affect my diet, no big difference.” Mr. P. also believed that was because of different lengths of time living in Canada:

New immigrants have this concern, and old immigrants don’t. [At least] frozen foods have fewer bacteria. New Chinese immigrants complain the foods taste not good. They can add some spices by themselves. Frozen foods are better and have fewer bacteria.

Although some male participants noted that new immigrants had more concern about the quality of foods than old immigrants, female seniors still had this concern even living in Canada for many years. For example, Mrs. S., who has lived in Canada over 20 years, still had many complaints about the foods in Canada.

Most participants can buy groceries independently; however, they also considered the solutions when they cannot buy groceries by themselves in the future. Mrs. A. spoke out her opinion clearly: “If you still cannot do it, you have children who can help you. If they don’t have children... they [seniors] can help each other.” However, they did not feel very comfortable about asking for help, even from their children. Mrs. S.
complained: "Usually, my daughter helps me buy groceries. Sometimes she is sick, or she is not in Calgary; or sometimes, she is busy working. For me, it's not easy to get foods."

Some participants mentioned that although there were health care services that can support Chinese seniors with buying groceries, they did not feel satisfied with these services. Mrs. A. expressed:

There are some persons who can help you buy groceries. First, you need to pay for that; second, you may not be satisfied with what they buy. You cannot explain specifically what you want. You need to see by yourself. That is one of our issues.

Mrs. S. also complained that it was difficult to order a taxi:

The government gives me $70 per month for taking taxi. I can take taxi to buy some groceries... I booked a taxi but it didn't come. They didn't want to come. I called them, and the staff said, "They are coming. Please wait for a while."

However, they didn't come.... Therefore, it's really hard to be a senior....

In addition, most grocery delivery services are available in Western grocery stores (e.g., Co-op and Safeway) (Kerby Centre, 2005), and the participants had to consider more about financial issues and unavailability of traditional Chinese foods, as Mrs. S. described:

The stuff in Safeway is so expensive. An apple in Safeway will cost $1.99; however, if I buy in XXX [a Chinese store], I just need to spend $0.99. It's so expensive in Safeway, much more expensive.

According to the issues discussed, the participants gave some suggestions to solve the problems. Volunteers and staff who can speak Chinese were considered by the
participants, which were reported in previous studies as well (e.g., Choi & Smith, 2004).

Mrs. S. said:

If the government can arrange one person [volunteer] to help seniors [like me] buy groceries, and that is what I really need. . . I prefer to find a Chinese because I would like to buy Chinese foods. That is my need, and that is what I really want, the most important thing in my life.

Mr. P. also suggested: “If you can hire a person [who] helps you at home, you don’t spend so much money. You hire a person to cook for you at home . . . it’s convenient.”

Financial Issues

All participants in this research study expressed that they had no financial issues except for one female subject and it may be because most of them were able to achieve an economical food budget. There were some discussions below.

Achieving an economical food budget. This opinion was found to be very common among most participants, regardless of socioeconomic status. Mrs. A. provided her opinion on this subject:

It’s not necessary to buy expensive products. We don’t have this [economic] condition now. We will not buy expensive products, even though we have this [economic] condition. Compared with our children, we are different. My daughter-in-law throws leftovers into the garbage, and we never do that. We can eat them on the second day. The young people don’t eat. How wasteful it is!

Mr. D. agreed:

We eat very simply and don’t pay much attention to that. We are not like others, [who] must eat some specific foods, and we eat what we can get. [We see] which
food is cheap, and we just buy it. It’s so expensive to buy big fish or fresh fish, so I just buy frozen fish. I always think about the economic issues.

According to the elderly interviewees, there were many ways to save money when they bought groceries: they chose to buy groceries on sale, those in season, and ones with coupons. Mr. H. stated: “You can choose fruits or vegetables in season. At that time, the quality is best and the price is lowest. You don’t buy them off-season . . . the price is highest but the quality is lowest. It’s not necessary.” Similarly, Mr. J. said: “We buy the foods which are cheap. We don’t always go to the same store because every store has different foods on sale.” Mrs. E.’s opinion focused on balancing a limited income and dietary expense:

For me, I will not eat these expensive foods if I don’t have enough money. You need to think about how much you can spend according to how much you earn. I calculate my expense very carefully, and I will not overuse it.

In addition, all participants except for one believed that there were no serious financial issues when living a simple life in Canada, although many of them had low income. Mrs. A. said: “The foods are not expensive here . . . the cost for foods is not very high. We can afford that if we want to eat something.” Also, Mr. P. echoed: “Chinese are different from Western people. Western people like drinking, and that costs too much. Western people always eat expensive foods. We buy noodles, chicken, vegetables, and meat. [We] don’t spend so much.”

They also stated that social policies for seniors in Canada play a significant role in maintaining the seniors’ quality of life, especially financial supports. For example, Mr. J. stated:
The [Canadian] government takes care of seniors very well. If you never worked before... the government will give you benefits that can help you reach that level [$1,100-$1,300] every month. There are many services that provide benefits to seniors. When I go swimming, I don't need to pay so much money. When taking a bus, if we are low-income, we just need to spend $15 for annual bus tickets. If you don't require so much, that is enough.

Mrs. C. also endorsed this opinion: "Different stores in Canada provide so many conveniences [on sale] to you and let you, the low-income family, live very well."

Financial issues with aging. Although most participants had no financial issues on their current dietary practices, some female participants stated that financial issues will appear and become more serious with aging, which may prevent them from choosing appropriate and healthy foods. With aging, limited ability to purchase and prepare foods will force them to spend additional money on living in a convenient location or ask for help from some paid services to buy groceries or cook when they cannot do it independently. Mrs. A. spoke out:

To be honest, [I cannot image] what will happen in the future when we cannot walk? If you live in the nursing home, do you have enough money? Actually, the Chinese seniors still have financial issues. Living in the nursing home is so expensive. We cannot image what kind of life we will have at that time.

The additional medicine fees that were not included in medicine insurance had to be considered as well. Mrs. C. expressed her opinion:

The Canadian government treats the traditional Chinese medicine as a kind of nutrition... It's difficult to improve your health by using traditional Chinese
medicine in Canada because you cannot afford it by your low income... When people become old, they will have a lot of chronic pain. To be honest, massage and acupuncture in traditional Chinese medicine are good for the chronic pain. However, you cannot afford it. It’s impossible to afford it by your low income.

Mrs. S. also echoed:

Now, I do my best to save money. Why? It’s because I need to pay for oxygen... I need to pay almost $300 [for oxygen]. The rental fee for the apartment is $580, and it’s so expensive... I give them all of my money, and don’t have [enough] money on my diet. The government just gives us about $1000, and that is not enough.

Summary

Biological changes were the most important factor influencing the elderly Chinese participants’ dietary practices. Biological changes not only affected these participants to choose specific diets, but also influenced their related dietary practices, such as cooking and buying groceries. Moreover, maintaining psychological health was also deemed necessary when seeking a healthy diet and lifestyle. In addition, traditional Chinese foods were available and accessible in Canada, and the participants had no difficulties in having traditional Chinese foods, although some female participants were concerned about the quality, safety issues, and taste of foods. Also, most participants had no financial issues with buying their favourite foods, regardless of their economic status. It may be because they were always able to achieve an economical food budget. Finally, financial issues were addressed that may prevent Chinese seniors from having a healthy diet when they cannot prepare foods independently.
CHAPTER FIVE: DISCUSSION AND RECOMMENDATIONS

This qualitative study provided a basis of understanding contextual factors influencing the dietary practices of Chinese Canadian seniors. Using a convenience, purposive, and snowball sample of elderly Chinese participants, their dietary practices and contextual factors influencing the dietary practices were explored. Since few research studies have addressed factors influencing the dietary practices among the Chinese elderly population in Canada, the results in this study might be considered by health care professionals in improving health and nutrition programs to effectively meet the dietary needs of Chinese Canadian seniors.

Cultural Beliefs and Values

Individuals' knowledge, beliefs, values, and attitudes influence their behaviours significantly, which are identified as "predisposing factors" (Green et al., 1980; Green & Kreuter, 1991). Although previous studies indicated that the cultural beliefs significantly influenced the dietary practices of the Chinese immigrants (Chau et al., 1990; Diehl et al., 1998; Satia et al., 2000, 2001, 2002), there was little research systematically exploring what kind of cultural beliefs the Chinese elderly immigrants have to guide their dietary practices. Based on Kleinman's EMs (1978, 1980), it is essential for health care professionals to understand the cultural beliefs and values Chinese Canadian seniors have and how culture is conceptualized in their dietary practices in order to design appropriate nutrition and health programs for this elderly population. This research study revealed that there were varied cultural beliefs and values addressed in impacting the dietary practices among the Chinese elderly participants.
Health Concerns among the Chinese Elderly Participants

All participants in this study reported that they had a need to gain appropriate health information. With aging, all participants had health concerns (e.g., improving their diets against chronic diseases), especially when they or their spouses had physical problems (e.g., diabetes or high cholesterol). Similar results were found in the studies of the mainstream and minority elderly populations (Garcia & Johnson, 2003; Gustafsson & Sidevall, 2002; James, 2004; McPhee, Johnson, & Dietrich, 2004; Rainey et al., 2000; Stewart et al., 1998). However, health concerns were seldom emphasized in previous studies of the Chinese elderly population exploring their dietary practices, with one exception being a study exploring fat-related dietary practices among Chinese Americans by Liou and Contento (2006) in which the elderly had more health concerns than their younger counterparts. Having the need to gain appropriate health information was a motivating factor in developing a cultural conceptualization of an appropriate diet for the elderly participants while seeking to improve their dietary practices and lifestyles. In addition, the elderly participants in this study had specific health concerns related to their different backgrounds (e.g., health issues, lived experiences, and educational levels). For example, Mr. J. preferred to obtain updated health and medical information related to diabetes, and liked to discuss the information with his family physician and decide an appropriate way to control his blood glucose level, while, Mr. P. was satisfied with the general health information learned from health care programs. Thus, providing general health information may not appropriately meet these seniors’ individual health needs. Realizing the Chinese seniors’ health concerns and understanding their specific health concerns may be the first step for health care professionals when developing effective
consultation about health and nutrition among this elderly population. In addition, it will also be an important way by which to build trust between health care professionals and the Chinese elderly clients.

A Combination of Traditional Chinese Beliefs and Western Health Information

The elderly Chinese participants gained appropriate health information from both traditional Chinese cultural beliefs (e.g., regarding balanced diets) and contemporary Western health information (e.g., beliefs in the relationship between diet and chronic diseases). These findings were different from those of Satia et al. (2000, 2002). Satia et al. reported that older Chinese participants retained more traditional Chinese health beliefs than Western health beliefs.

The cultural beliefs most frequently mentioned by the elderly participants were cultural conceptualization of an appropriate diet for seniors. In particular, the most predominant principle mentioned in the cultural conceptualization was “keeping a balanced diet,” the basic principle in Taoism and the Yin and Yang philosophy, including eating varied foods, considering prescriptive and proscriptive values in foods, not eating too much at once, and keeping a balance of “input” and “output.” Furthermore, the participants added new meanings to these traditional Chinese beliefs in terms of Western medical information, such as taking appropriate food supplements (e.g., multiple vitamins and/or calcium). It is important to note that although many participants considered the Yin and Yang philosophy and Taoism in improving their dietary practices (e.g., a balanced diet) and believed that the principles in these theories were good for their health, they did not explain their dietary improvement according to these traditional Chinese theories. These findings were different from those in previous studies (e.g., Chau
et al., 1990; Satia et al., 2000, 2002), in which the older respondents were found to maintain traditional Chinese beliefs, such as the Yin and Yang philosophy.

Besides “keeping a balanced diet”, the principles “having a plain diet,” “eating less refined foods,” and “fitting physical needs” were also reported by some elderly participants in considering an appropriate diet for seniors. Guided by “having a plain diet” and “eating less refined foods”, the elderly participants tried to improve their diets by eating more unrefined foods, improving their cooking methods, and changing their unhealthy dietary habits. They believed these dietary changes would help them prevent and control their chronic diseases. They explained these beliefs by using Western health information. For example, Mrs. A. controlled egg consumption in her diet because she learned that high egg consumption would easily cause high cholesterol. Many participants acknowledged that keeping these practices was not easy, and the main reason was that healthy foods did not taste good. Keeping these dietary beliefs in mind, some participants tried to enjoy eating occasionally, such as eating delicious foods (i.e., foods that comprised their traditional diet). Finally, many participants insisted that it is necessary to consider these principles individually and should fit the seniors’ own physical situation when following them.

Influences of Religious Beliefs

Besides Taoism and the Yin and Yang philosophy, another important traditional Chinese belief is Confucianism, which addresses generational hierarchy (paternalism) and gender hierarchy (masculinism) (Cheng, 1997). Although the participants in this study did not mention it explicitly, Confucianism appeared to influence their dietary practices. As mentioned in the previous chapter, even though most participants did not
live with their children, when their children lived with or visited them, they considered their children’s dietary needs first and prepared their favourite foods. This was similar to the findings of other studies (e.g., Lv & Cason, 2003; Satia et al., 2000, 2002). In particular, one participant still helped with taking care of his grandchildren and feeding them, which is common in Confucianism (Wolf, 1970). Furthermore, they provided foods to their children that they believed were healthy and good for them. For instance, one participant mentioned that they ate a lot of fish at home because eating fish can make people smarter, and his children were smart. The female participants in this study ate different foods than their spouses, depending on their different dietary needs and favourites. This finding was different from that in other studies (Satia et al.), with female participants following other family members’ food choices, such as older family members, husbands, or children. Furthermore, they cooked foods in a healthy way; regardless of whether or not they had dietary restrictions. For example, Mrs. C. chose specific sweeteners instead of regular sugar in her home, even though her husband does not have diabetes.

A few participants were Christian and Buddhist in this research study; however, no one stated that their religion affected their dietary practices. Some participants reported that they did not eat as much meat but that it was due to chronic diseases, the bad taste of meat in Canada, and/or aging.

Influences of Long-term or Childhood Dietary Habits

Besides developing the cultural conceptualization of an appropriate diet for seniors, the elderly Chinese participants also addressed the influences of long-term and childhood dietary habits on their current dietary practices, which were reported in other
studies of the general elderly population (De Almeida et al., 2001; Rainey et al., 2000; Winter Falk et al., 1996). "Cu Cha Dan Fan" (i.e., having a simple diet in English) was a predominant belief held by many elderly Chinese participants. Some participants considered it to be a long-term dietary habit. However, it may be affected by the principle of simplicity in Taoism. Also, it may be due to their lived experiences in the social movements in Chinese history, during which poverty and hunger were common, such as the Japanese occupation of China (1937-1945), the Great Leap Forward (1958-1960), and the Cultural Revolution (1966-1976), which were mentioned in the interviews. Others also stated that keeping a simple diet was necessary for seniors because of dietary restrictions.

Moreover, some elderly participants reported that childhood dietary habits influenced their dietary practices significantly and were difficult to change, as also reported in previous studies (e.g., De Almeida et al., 2001; Stewart et al., 1998; Winter Falk et al., 1996). In addition, long-term chronic disease experiences also affected some elderly participants' dietary practices. These elderly participants have had chronic diseases for a long time, and they might have acquired some health information. They had their individual understandings of an appropriate diet and how to control the diseases. Therefore, it is possible that if their beliefs are different than the suggestions from health care professionals, they may not follow the professional suggestions. Distrust between the Chinese elderly clients and health care professionals may occur, which prevents the development of effective and positive relationships between the elderly clients and health care professionals. Therefore, for health care professionals, exploring and learning their
elderly clients' experiences of controlling chronic diseases might reduce distrust and build a positive therapeutic relationship.

The participants in this study also reported the conflicts between keeping healthy dietary beliefs and their individual dietary preferences (i.e., childhood dietary habits and long-term habits). Some of them believed that they needed to follow healthy foods guidelines and ignore their previous preferences because the previous dietary habits were not good for their health. However, others stated that it was possible to keep the previous dietary favourites when considering their health because it would be difficult and unenjoyable to completely change their dietary habits. Therefore, when health care professionals provide effective nutrition programs, it is more important to discuss these conflicts with the Chinese elderly clients and help them solve the problems, rather than only introduce health information to them.

Finally, the elderly participants in this study believed that lack of access to Western health information or having a low educational level may prevent the Chinese elderly from recognizing their unhealthy dietary beliefs. For health care professionals, assessing the educational levels of their Chinese elderly clients may be necessary before providing health information. In addition, appropriate education materials (e.g., can be easily read and understood) need to be considered as well.

*Influences of Traditional Chinese Medicine*

When discussing the cultural beliefs and values influencing their dietary practices, the elderly Chinese participants talked about the importance of traditional Chinese medicine. Traditional Chinese medicine knowledge played a significant role in the daily lives of the Chinese elderly in this study because Chinese medicine was believed to be
better than Western medicine for curing chronic diseases without harmful side effects, (Holroyd, 2002; Ren & Chang, 1998). According to the interviewees, they had difficulty accessing traditional Chinese medicine in Canada. The main reason is that standard medical insurance seldom covers traditional Chinese medicine, both in Canada (Lai, 2001) and the U.S. (Ma, 1999). Establishing an insurance system for traditional Chinese medicine may need to be considered by policymakers in Canada in order to promote Chinese Canadian seniors’ healthy diets and lives. Consideration of medicinal values of food was common in this study (e.g., drinking green bean soup is good for hypertension). There has been little research conducted that explores the relationship between food and medicine among migrated populations in Western countries (Pieroni, Houlihan, Ansari, Hussain, & Aslam, 2007). Therefore, further research may need to be conducted to explore medicinal functions of food among ethnic populations. Also, understanding the medicinal functions of ethnic foods and using them as examples would help health care professionals with designing nutrition programs and consulting with their elderly Chinese clients effectively and successfully.

**Dietary Acculturation**

Dietary acculturation is a specific characteristic within the Chinese immigrant population. All participants in this study had some level of dietary acculturation, with most of them having changed their breakfast to a Western-style breakfast, similar to findings of other studies (e.g., Chau, 1990; Satia et al., 2000, 2002). In addition, the participants had different opinions about dietary acculturation. Dietary habits and the taste preference for traditional Chinese foods were the main reasons for keeping traditional Chinese diets in this study, as was found in Lv and Cason (2003). Although
time-consuming was believed to be a barrier when cooking a traditional Chinese diet (Satia et al.), no participants except one male participant complained about it in this study. It may be because the participants in this study have more time to cook their favourite food after retirement. In addition, many participants reported that it was not necessary to adopt a Western-style diet; however, they believed that in certain situations they would have to choose a Western-style diet, where there are no traditional Chinese foods available (e.g., in hospital). Providing adequate traditional ethnic foods in health care institutions (e.g., nursing homes and hospitals) may need to be considered to meet the dietary preference and nutritional needs of the minority groups, especially the elderly population, who prefer a traditional ethnic diet (Netland & Brownstein, 1984).

Summary

Cultural beliefs and values were strong determinants in shaping how the elderly Chinese participants define an appropriate diet for seniors, improve their dietary practices, and obtain health information. These cultural beliefs and values exerted both positive and negative influences that contributed to the elderly participants’ dietary practices. For example, unhealthy childhood dietary habits and dietary beliefs may prevent the elderly participants from consuming a healthy diet. Some findings in this study supported those in previous studies. However, some cultural beliefs and values found in this study provided unique information not previously reported in studies of the Chinese elderly population or available to health care professionals in Canada. This study provided a systematic understanding of an appropriate diet for seniors from the Chinese seniors’ perspectives. Therefore, health care professionals should consider these cultural
beliefs and values to better understand Chinese Canadian seniors’ dietary practices and meet their dietary needs.

**Social Networks and Influences**

Besides cultural beliefs and values influencing the Chinese elderly participants’ dietary practices, the impact of social networks on their dietary practices were significant as well, such as family members, peers, and health care professionals and services. According to the PRECEDE-PROCEED model, these impacts were identified as “reinforcing factors” (Green et al., 1980; Green & Kreuter, 1991).

**Family Members and Peers**

Most of the elderly participants lived separately with their children. Mostly, they considered their spouses’ dietary needs and prepared different foods for them. Furthermore, eating with other seniors, either in their homes or in restaurants was a main social activity among these Chinese elderly participants. Therefore, considering the influences of their friends and discussing their dietary experiences of eating with other elderly would be helpful for health care professionals when developing appropriate nutrition and health programs for these Chinese seniors.

**Chinese Communities and Organizations**

According to most participants in this study, the local community centre for the Chinese elderly played a significant role in their daily lives by providing a place to meet friends, have parties, and attend recreation services and health education programs, especially for those speaking Cantonese. Therefore, Chinese communities can serve a variety of functions including nutrition education opportunities and social interaction
opportunities. Empowering the abilities of Chinese communities might need to be considered by health care institutions and program coordinators in Canada.

*Current Health Education Programs and Services*

In contrast to other ethnic populations, who had difficulty accessing health information (Garcia & Johnson, 2003; James, 2004), the elderly Chinese participants in this study had varied sources from which to obtain health information, such as friends, media, books and magazines related to health and nutrition, health care programs, and health care professionals. Even those who lived alone and seldom attended Chinese community activities obtained health information by listening to the radio or reading some written materials at home. The elderly participants in this study have fairly high educational levels, compared with those in previous studies. It may provide them with more opportunities to access Western medical knowledge in both Chinese and English.

With respect to the content of health information, most of the participants paid attention to the information that was good for their specific physical needs, such as checking food labels to choose appropriate foods when buying groceries. However, nobody mentioned using Canada’s Food Guide to prepare foods in their daily lives. In addition, only a few attended health education programs or gained health information from health care professionals. The main reason was language barriers. This has been reported in other studies (Satia et al., 2000, 2002). However, English is the only language barrier mentioned in previous studies of the ethnic elderly population (Garcia & Johnson, 2003; Netland & Brownstein, 1984; Satia et al., 2000; Ying & Miller, 1992). Compared with their Cantonese counterparts, the participants who can only speak Mandarin seldom attended health and nutrition programs because there were few Mandarin interpretation
services available. It may be assumed that the Chinese seniors from mainland China speaking Mandarin have more difficulty accessing health care services in Canada and need more concerns and support. Considering the Chinese seniors’ different dialects and cultural sensitivity is important when providing health and nutrition programs and consultations with increased number of Chinese immigrants coming from mainland China (Lai, 2001). Although the elderly participants speaking Cantonese can easily communicate with their family physician and attend health programs organized in Chinese communities, they also faced similar language obstacles when seeing English-speaking specialists. Therefore, providing convenient language services to the Chinese elderly population might be important to encourage them to attend health care programs and obtain health and nutrition information from health care professionals. The following suggestions might be considered: training more Chinese-speaking health care professionals (e.g., Mandarin-speaking or Cantonese-speaking); setting up language-line services in health care institutions; and recruiting Chinese-speaking volunteers as translators in health and nutrition programs.

According to the interviewees, other important barriers to attending health and nutrition programs included inappropriate content and transportation issues. Pre-testing the reading materials of health and nutrition should be important before sending to the Chinese elderly clients. Most participants attended some social activities in Chinese communities, such as eating in Chinese restaurants, meeting at the centre for the Chinese elderly, shopping in Chinese grocery stores, and going to Chinese churches. Therefore, organizing health education programs in other Chinese communities instead of Chinatown (e.g., Chinese churches) might solve transportation issues and attract more
Chinese seniors to attend the programs. In addition, appropriate written materials in health and nutrition might need to be developed and made available in such locations (e.g., Chinese restaurants).

Health information obtained can be complicated and confusing, and most participants in this study identified the necessity to evaluate the health information gained, which was only reported in a few studies (Gustafsson & Sidevall, 2002; James, 2004; McKie et al., 2000). Some elderly participants believed that not all Chinese Canadian seniors had the ability to evaluate health information gained. Having a high educational level was a salient factor influencing their ability to evaluate contemporary Western health information. Therefore, monitoring the health information they gained and helping them evaluate the information may be necessary when health care professionals counsel Chinese Canadian seniors about health and nutrition, especially those with low educational levels.

**Enabling Factors Influencing Their Dietary Practices**

According to the PRECEDE-PROCEED model, enabling factors are the conditions that impede or facilitate the elderly Chinese participants accessing their favourite foods in this study. In contrast to other studies (Berry, 1997; Chau et al., 1990; Lv & Cason, 2003; Satia et al., 2000, 2001, 2002), the degree of acculturation, such as age, gender, length of time living in Canada, English proficiency, and educational level did not affect the participants’ choices of traditional Chinese foods in this study. In addition, most participants believed that there was no nutritional difference between a Western-style diet and a Chinese-style diet; it depends on individuals’ preferences. Also, from the participants’ perspectives, there were no language barriers when obtaining
traditional Chinese foods. Interestingly, although no participants thought that there were language barriers in buying groceries, they used simple English words frequently. For example, one of them mentioned that she learned the English words *sugar* and *sugar free* after she had diabetes, and began to check the words on the food labels of products purchased. This raises the possibility that limited or no English abilities may prevent the Chinese seniors from obtaining nutritional information available on the food labels of products, which may influence the quality of their diets. Further studies may need to be conducted to explore the use of food labels among Chinese elderly population, especially those with diet related diseases.

*Influences of Biological Changes and Psychological Health*

According to the interviewees, biological changes were the most salient factor influencing their diets. Mainly, having chronic diseases or being at high risk for chronic diseases required food restrictions among most participants in this study. Diet modifications to maintain health were considered an essential method of seeking health, even though some participants mentioned that they did not pay attention to what they ate. From the elderly participants’ perspectives, physical disabilities due to aging or having chronic diseases were another important biological change influencing their dietary practices. Most participants in this study cooked and purchased groceries independently; however, some female participants stated that physical disabilities due to aging would prevent them from cooking and buying groceries independently in the future. These findings were echoed in the results of other studies among the elderly population (e.g., Drewnowski & Shultz, 2001; Pierce et al., 2002; Porter, 2007; Rainey et al., 2000; Winter Falk et al., 1996).
Healthy psychology played a significant role in seeking healthy lives and diets according to the elderly Chinese participants. In particular, some of them identified that having a meal with other Chinese seniors was a joyful occasion since they could chat happily and eat more, compared with eating alone at home. Similar findings were found in other studies (Wikby & Fagerskiold, 2004; Winter Falk et al., 1996). In particular, healthy psychological conditions for the elderly population have been correlated with good appetite (Wikby & Fagerskiold). In this study, the participants with a range of social networks had more opportunities to eat with others and eat more. However, some of them preferred not eating with others frequently due to individual health status and perceptions. For example, Mrs. E. mentioned that many friends invited her to have a meal with them during the holidays. However, she had to refuse sometimes. She was unable to eat outside frequently due to her illness. Also, Mrs. A. preferred not to eat in restaurants because of the unhealthy foods often served. There were several issues influencing the psychology health among the elderly Chinese participants, which included conflicts with their children, feeling lonely, having diseases, and perceiving a lack of support. Considering these obstacles to psychological health and helping the elderly Chinese solve these problems may be necessary when providing nutritional consultations.

Financial Issues

In contrast to the findings in other studies of the elderly population (Davis et al., 1990; Drewnowski & Shultz, 2001; Garcia & Johnson, 2003; Hall & Brown, 2005; Pierce et al., 2002; Satia et al., 2000; Winter Falk et al., 1996; Yen, 2004), financial issues were not emphasized by most participants in this study when seeking a healthy diet, although many of them were living near or below the low income cut off (City of Calgary
Community Strategies, 2003). Most participants in this study were able to achieve an economical food budget. In addition, current social policies for seniors in Canada were supportive. Public transit services provided cheaper tickets for seniors, allowing the elderly participants to go anywhere to purchase cheaper and appropriate traditional Chinese foods.

Similar to their male counterparts, the female elderly participants in this study had no specific financial issues in order to keep a healthy diet. However, the female participants had more concerns about increasing financial issues surrounding their dietary practices in the future. For example, they believed that they would have to pay more for the expensive foods in closer grocery stores or delivery services due to physical disabilities in the future. The widowed female elderly participants reported more barriers in their dietary practices than other participants, such as purchasing foods and financial issues. However, of the two widowed female participants, one who had more social support had less difficulty with purchasing foods. Therefore, the combination of gender and social isolation may be considered specifically in future research on the dietary practices of Chinese Canadian seniors because widowed female elderly immigrants may experience more nutritional high-risk factors than other elderly people (Hall & Brown, 2005).

Compared with their Caucasian counterparts, many elderly immigrants have Old Age Security pension (OAS) as their only fixed income. Therefore, financial issues can be assumed major concern among these elderly immigrants due to the limited income combined with increased expenses in food, medication, and other necessities.
Food Availability and Accessibility

Food availability and accessibility were also addressed in this research study. All participants except for one female commented that fresh foods were easy to access. It may be because most of them were able to do their own shopping and buy groceries at a low price. However, some female participants stated that purchasing groceries independently may be impossible with aging. They may need to arrange for grocery delivery services, which may prevent them from obtaining traditional Chinese foods at an affordable price. Diet related services (e.g., grocery delivery services) were seldom recommended by the elderly Chinese participants because of financial issues, inconvenience, and lack of traditional Chinese foods. Based on understanding the elderly participants' barriers in preparing traditional Chinese foods, several improvements should be considered by Chinese community services and governments in order to better meet these Chinese seniors' dietary needs: setting up grocery delivery services in Chinese grocery stores or the stores with traditional Chinese foods; recruiting Chinese volunteers to accompany the Chinese seniors when buying groceries; and providing convenient transportation to Chinese grocery stores; and establishing grocery stores with affordable traditional Chinese foods that Chinese seniors can easily access. Furthermore, health care professionals and policymakers may consider providing additional financial support to Chinese Canadian seniors living alone or older seniors.

Due to the limited number of Chinese nursing homes and dissatisfaction with the services in existing nursing homes, a few female participants believed that living in long-term health institutions would be the last step in their lives, and they preferred to live in their own homes. However, no participants mentioned food delivery services except for
one female participant living in a seniors’ apartment building. Health care professionals might need to introduce this kind of service when the Chinese elderly have this need, since lack of knowledge about this type of service is common among minority elderly groups in Western countries (Choi & Smith, 2004). Also, affordable traditional Chinese diets might need to be considered when providing services especially for frail Chinese seniors who live alone and have less social support. For example, one food delivery service, “Chopsticks on Wheels,” offers traditional Chinese diets in Calgary Meals on Wheels, which is planned with the Calgary Chinese Elderly Citizens’ Association (Calgary Meals on Wheels, 2007). However, there is no menu available and the price is $4.25 per meal, which may not be affordable to every Chinese senior.

Therefore, the increasing financial issues often occurring with aging may also happen among Chinese Canadian seniors. Health care professionals and policymakers in Canada might need to concern these potential financial issues among the Chinese elderly population when promoting their diets and quality of life. Further research might be conducted which focuses on Chinese Canadian seniors who have difficulties with cooking and buying groceries independently.

The findings of this study revealed significant information related to dietary practices of Chinese Canadian seniors that will be relevant for not only nurses, but also for other health care professionals such as physicians, dieticians, health educators, and social workers. RNs might have more opportunities (e.g., visiting seniors at their homes, working with different ethnic communities) to explore barriers and facilitators relating to these seniors’ dietary practices and then provide effective health information.
Implications for nursing practice, education, and research are presented in the following three sections.

Implications for Nursing Practice

*Understanding Their Cultural Beliefs and Values*

An increased understanding of the specific dietary needs of Chinese elderly immigrants will help to implement and plan future culturally sensitive nutrition health services. Understanding Chinese Canadian seniors’ varied cultural conceptions and views of healthy diets and the influences of both traditional Chinese and Western medical information is essential to improving their dietary practices. Traditional Chinese cultural beliefs (e.g., the Yin and Yang philosophy) were generally addressed in previous studies related to dietary behaviours of elderly Chinese immigrants. However, most of the participants in this study did not follow these traditional Chinese cultural beliefs totally; instead, they followed some principles which they believed are good for their health, such as keeping a balanced diet. In addition, traditional Chinese religious beliefs, such as Confucianism, still somewhat influenced the Chinese elderly participants’ dietary practices. At the same time, the elderly participants improved their diet by learning more and more Western health information. Therefore, a pre-assessment of their traditional Chinese beliefs as well as Western health information gained would be necessary for RNs when providing nutritional consultations.

Based on the findings of this study, RNs in Canada must move beyond stereotypical understandings (e.g., Chinese elderly population retain traditional Chinese cultural beliefs, such as Yin and Yang) and realize that more and more Western health information is used to guide these elderly immigrants’ dietary practices. In addition, the
findings in this study also identified that viewing the dietary practices of the Chinese seniors in a holistic manner would contribute to RNs in Canada understanding the contextual factors influencing their dietary practices, such as different physical status, social support networks, economic status, and lived experiences. All the elderly Chinese participants required health information. However, RNs must realize that nutrition education can be effective only if it conveys information that is relevant to their clients. Therefore, understanding their health concerns is important in providing effective health information. Also, considering the effects of traditional Chinese foods as medicine in dietary practices is an effective way to make health care services more culturally sensitive. This consideration includes exploring seniors’ understanding of medicinal functions of traditional Chinese foods. Finally, RNs must explore with their elderly clients the use of food supplements and traditional Chinese medicine when exploring their dietary practices because elderly clients may take food supplements and medicine without informing health care professionals, thus preventing RNs from providing effective nutritional consultation.

For RNs in Canada, recognizing that Chinese Canadian seniors’ cultural beliefs are varied and dynamic as well as questioning how their own views and biases may influence a successful conversation between them and the elderly Chinese are necessary when consulting with these Chinese seniors. Both cultural generalizations and stereotypical views may lead to prejudice if RNs are not aware of their own judgmental attitudes. Care and attention must be made to consider Chinese seniors holistically and contextually.
Providing Effective Health Information Resources

Understanding Chinese Canadian seniors’ health information resources and barriers to obtaining health information from current health services and programs will help RNs improve current health education programs and plan for services that are more culturally sensitive. For example, helping Chinese seniors to identify health information is crucial. Also, considering the different Chinese dialects (e.g., Mandarin and Cantonese) might lead RNs to encourage more Chinese seniors to attend health programs. In addition, providing health and nutrition programs and written materials in Chinese in more locations (e.g., Chinese communities, Chinese restaurants, Chinese grocery stores, and Chinese churches) will allow Chinese seniors to obtain the health information more easily. Moreover, preparing written materials with more Chinese characteristics (e.g., using traditional Chinese foods as examples instead of Western foods) will attract the Chinese seniors’ interests if the seniors prefer a traditional Chinese-style diet. Also, written materials may need to be pre-tested by Chinese seniors before using among the Chinese elderly population. Finally, recruiting more Chinese RNs and volunteers may also be important to better meet these seniors’ dietary and health needs.

Implications for Nursing Education

Nursing students and RNs must be aware of accessibility and availability of traditional Chinese foods for Chinese seniors. For example, considering the dietary needs of Chinese elderly clients in health institutions such as hospitals, care homes as well as the community must be addressed. Furthermore, RNs play a valuable part in advocating for the availability of traditional ethnic foods and menus in health institutions as well as in the community setting.
In addition, with more and more immigrants choosing Canada as their new home, RNs and other health care professionals have begun to realize the importance of cultural competency in order to provide culturally effective services for immigrant clients. According to the findings in this study, the Canadian Nurses Association may consider updating their dietary guidelines so that RNs may improve seniors’ diets. Furthermore, understanding the influences of cultural beliefs and values on seniors’ dietary practices would not only help RNs become more aware of the seniors’ cultural conceptualizations of an appropriate diet, but would also encourage seniors to become more observant about their dietary issues, potentially making the nutrition assessment process that nurses do more informative and useful. Raising the awareness of nursing students to be more culturally sensitive with elderly immigrants is a valuable educational goal. Current nursing education programs should also include content about Chinese seniors’ cultural conceptualizations of a healthy diet. In addition, discussing the cultural characteristics and specific dietary needs within the Chinese elderly population would help nursing students to become more culturally competent, so they may consider seniors’ needs both holistically and contextually.

**Implications for Nursing Research**

This research study explored the contextual factors influencing the dietary practices of Chinese Canadian seniors from the elderly Chinese participants’ perspectives including cultural beliefs and values, influences of family members, peers, and health care professionals, biological changes, psychological health, financial issues, and availability and accessibility of traditional Chinese foods. The essential characteristics and approaches of ethnography guided this study to find significant information about
elderly Chinese participants' dietary practices. Nurses conducting ethnographic research on dietary practices in Chinese elderly population might be done in a broader context, such as in attending social activities, observing behaviours related to shopping and cooking, and visiting Chinese grocery stores and restaurants. Further longitudinal design and qualitative studies involving Chinese Canadian seniors within varied personal, social, and cultural contexts would additionally explore the factors influencing dietary practices especially in seniors at high risk (e.g., living alone, with less social support, or having financial issues). Further, quantitative studies focusing on nutrition and health of Chinese Canadian seniors would explore the relationship among these contextual factors and nutritional risks among elderly Chinese immigrants. Acculturation indicators reported in previous studies (e.g., gender, age, educational level, and English reading level) did not influence the participants’ dietary acculturation in this study. The elderly participants in this study believed that an individual's preference was the only indicator that led them to choose either a Western-style diet or a Chinese-style diet. Further research specifically on dietary acculturation of the Chinese elderly population may need to be conducted. Finally, studies may be conducted to explore the dietary practices among other ethnic elderly immigrants in comparison to the findings in this study. For example, financial issues and lack of social support may be obstacles among other elderly immigrants as well when seeking to achieve a healthy diet.

Limitations of the Study

Qualitative methods help researchers understand the participants’ beliefs and behaviours in depth (Liehr et al., 2005). However, due to the use of a small, convenience, purposive, snowball sample, the generalizability of results may be limited. In addition,
people who agreed to attend the study may have more health concerns than those who refused to attend the study (Shatenstein, Nadon, & Ferland, 2004), which may influence the generalizability of results as well. All participants in this study were born in China. Their dietary practices, cultural beliefs and values, and barriers may be different from second-generation Chinese seniors in Canada. Therefore, any attempt to generalize the findings to other Chinese Canadian seniors should be done with caution.

Furthermore, an interpreter was involved in the interviews if the elderly participants can only speak Cantonese. I understood the conversation between the interpreter and the elderly Chinese participants speaking Cantonese, and there were no threats to validity due to interpretation in this study (Kapborg & Bertero, 2002). However, having a third person (i.e., the interpreter) in the interviews and not communicating with the participants directly could potentially result in them not speaking out their opinions freely, which may affect the quality of data collected.

In spite of these limitations, the findings obtained in this study will provide valuable information for health care professionals and a foundation for future research with a basic understanding of the contextual factors influencing the dietary practices of the elderly Chinese currently.

**Conclusion**

The Chinese population is one of the biggest visible minority groups in Canada, with an increasing proportion of elderly people. Many chronic diseases are diet-related and common among the elderly population. The dietary practices of Chinese Canadian seniors are in a complicated context varying with their physical issues, gender, language barriers, social support and health services, and socioeconomic status. Exploring the
contextual factors influencing their dietary practices should be significant to improving their quality of life and diet.

This qualitative research study explored the dietary practices and contextual factors of the Chinese elderly participants by interviewing them. The findings revealed that dietary practices varied among Chinese seniors within a Canadian context. The cultural beliefs and values influenced the Chinese elderly participants in having an appropriate diet. Cultural conceptualization of an appropriate diet for seniors was addressed by the elderly participants with an understanding of both Western health knowledge and traditional Chinese beliefs.

Influences of social network were also important in the dietary practices of the Chinese elderly participants in this study, including friends, family members, and health care professionals. Friends were an important source by which the elderly participants obtain health information. Also, eating with friends was a main enjoyable social activity among the elderly participants. The Chinese elderly participants considered their family members' dietary needs, and their children's dietary needs were priorities. At the same time, they preferred to prepare a healthy diet for the whole family. The Chinese elderly participants did not get much health information from health care professionals, especially the seniors only speaking Mandarin. Language barriers, inappropriate content, and transportation issues prevented the Chinese elderly participants from accessing health education programs.

Barriers to access their favourite foods significantly influenced dietary practices of the elderly Chinese participants. Biological changes were believed a main issue from the elderly participants' perspectives. Financial issues were also considered as a potential
issue with aging. These findings of this study reinforced those of past studies; but also
extended beyond previous work by expanding the current understanding of their specific
personal, social, and cultural context. In addition, health care professionals should
recognize the complex interplay among factors (e.g., age, physical disability, and lack of
social support) in order to provide effective and holistic consultation.

These findings may also increase the understanding among researchers and health
care professionals regarding factors influencing the dietary practices of Chinese Canadian
seniors, and provide a basic foundation to develop culturally appropriate and effective
health education programs and services which may, in turn, further improve the health
status of elderly Chinese immigrants.
References


Rodgers, B. L., & Yen, W. J. (2002). Re-thinking nursing science through the understanding Buddhism. *Nursing Philosophy, 3*, 213-221.


http://www40.statcan.ca/l01/cst01/demo50a.htm?sdic=chinese%20population

http://www40.statcan.ca/l01/cst01/demo52a.htm


Appendix A

1st INTERVIEW GUIDE QUESTIONS

Potential Probing Questions

Find out about participants’ dietary experiences.

- What would be a typical breakfast/lunch/supper for you?
- Are there any different foods that you eat in particular days (e.g., holidays, birthdays, parties or other specific occasions)?
- Do you usually eat at home or outside?
- Do you usually have either a Chinese diet or a Western diet in your daily life?
- Why do you prefer a Chinese/Western diet?
- Where do you usually buy food?
- Who usually buys your food?
- Who usually cooks your meals?
- Who usually eats meals with you?
- How these people who help you buy/cook food or eat with you influence what you eat?

Find out about the factors affecting the dietary behaviours of the participants.

- What additional factors might affect your choice of food?
- Are there any different things influencing your diet between past and present?
- How do you think not knowing English might influence Chinese immigrants to choose their favourite food?
- How do you think having a different educational background might influence Chinese immigrants in regard to choosing food?
- How do you think age might influence Chinese immigrants to choose their favourite food?
- Do you prepare or eat different food than your husband/wife?
- Do you have any financial problems in buying your favourite foods?
- How do you adjust your diet when you have these financial problems?
- Are you satisfied with your current diet?
Appendix A (continued)

- Do you want to improve your current daily diet?
- What do you want to do to improve it?

Find out about participants’ knowledge and beliefs about diet.

- What is your idea of healthy food?
- What kind of cultural beliefs influence what you eat?
- How do you think about different diet characteristics varying in different locations in China?
- When you need the information about nutrition and healthy diet, where do you get it?
- What kind of information do you get?
- What do you think about the current information that you get about health and nutrition?
- Is it difficult for you to get the information related to healthy diet from health care services (i.e., physicians, public nurses, and health care providers)?
- Why is it difficult/not difficult?
- What would be the best possible way for us (e.g., health care providers) to help you get the information related to healthy diet?
- What would be the most helpful information that you prefer to get to improve your current diet?
- What else would you like to tell me about your dietary experiences?
Appendix B

SOCIO-DEMOGRAPHIC DATA FORM

Participant Code Number ______

Contextual Factors Influencing Dietary Practices of Chinese Canadian Seniors:
Elderly Chinese Canadians’ Perspectives

Section A
Age: ______ Sex: ______
Where were you born? ______
Marital status:
  Married: ______; Number of years have been together: ______
  Widowed/divorced/separated: ______; for how long: ______
  Never married: ______; others: ______

Children:
  None: ______
  Number of children and sex: ______
  Age of children: ______
  Living with children: Yes______ No______
  Provide help to children: Yes______ No______

Living arrangement:
  Living location: apartment______; house______; others ______
  Who you are living with: __________________________

Number of years of living in Canada: __________________________
Year of arrival: __________________________

Religion: ______
  Not applicable____________________
  Are you practicing your religion? Yes ____ No ___
  Other cultural beliefs: Yin and Yang ____; Taoism ____; Confucianism ____; others____
Physical status:
  Physical problems: ______________
  Chronic diseases: ______________
  Medication taking: ______________

Language speaking:
  First language: ______________
  Second language: ______________
  Others: ______________
Section B:

English proficiency:

<table>
<thead>
<tr>
<th>Speaking:</th>
<th>Reading:</th>
<th>Writing:</th>
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</thead>
<tbody>
<tr>
<td>Not at all:</td>
<td></td>
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<tr>
<td>Poorly:</td>
<td></td>
<td></td>
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<tr>
<td>So-so:</td>
<td></td>
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<tr>
<td>Well:</td>
<td></td>
<td></td>
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<tr>
<td>Fluently:</td>
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</tbody>
</table>

Are your friends:

Mostly from your ethnic group
Both from your ethnic group and not from your ethnic group
Mostly not from your ethnic group
Not applicable (have no friends)

When you watch TV or listen to the radio, is it:

Mostly in your first (mother tongue) language
Both your first language and English
Mostly in English

Section C:

Education and where:

University or college graduate: 
Some university or college: 
High school graduate: 
Some high school education (grad level): 
Less than high school education: 
Others: 

Employment:

Working full time: 
Working part time: 
Full time homemaker: 
Unemployed: For how long? 
Others: 

Previous occupation: 

Sources of income:

Pension (OAS/CPP/RRSPs): 
Employment insurance: 
Social assistance: 

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Appendix B (continued)

Disability insurance: ________________
Family support: ________________
Others: ____________________________

Yearly family income before taxes:
Less than $ 9,000 ________________
$ 9,000-$19,000 ________________
$ 20,000-$29,000 ________________
$ 30,000-$39,000 ________________
$ 40,000-$49,000 ________________
$ 50,000-$59,000 ________________
$ 60,000-$69,000 ________________
$ 70,000-$79,000 ________________
Greater than $ 80,000 ________________
Do not know ________________

Section D:
Do you participate in:
Your ethnic community activities/events ________________
Other community activities where you live ________________
Other social activities ____________________________

For your health care, do you use:
Mostly your traditional medicine ________________
Both your traditional and Western medicine ________________
Mostly Western medicine ____________________________

Type of health insurance:
Public: ________________
Private: ________________
No health insurance: ________________

Have a regular place of medical care: ________________
When was your last visit a medical clinic ________________
Have a regular doctor: ____________________________
When was your last visit to your family doctor ________________
Male doctor ________________ Female doctor ________________
Have English speaking doctor ____________________________
Appendix B (continued)

Have doctor who speaks your language

Have other health care providers Yes  No

If yes, please specify:
Appendix C

Information Letter to Health Care Organizations

Re: Study entitled “Contextual Factors Influencing Dietary Practices of Chinese Canadian Seniors: Elderly Chinese Canadians’ Perspectives”

MN Student: Xianmei Meng

Supervisor: Dr. Tam Truong Donnelly, University of Calgary, Faculty of Nursing

Supervisor Committee Members:
Dr. Carol Ewashen, University of Calgary, Faculty of Nursing
Dr. Janice Kinch, University of Calgary, Faculty of Nursing

The Chinese community is the largest minority group in Canada and has witnessed a continuous increase in the number of its elders in recent years. Compared to their counterparts in host countries and Asia, the elderly Chinese immigrants are at greater risk for some health issues (e.g., depression, mental health, heart disease, diabetes, and some types of cancer), which may have a significant relationship with diet. On the other hand, dietary practice plays a significant role in people’s nutrition, health, and wellness. For Chinese elderly immigrants, dietary behaviours are in a multidimensional context, and vary with culture, acculturation, socioeconomic status, social roles, and other factors. Although these specific health issues exist for Chinese elderly immigrants, currently there is limited understanding of how contextual factors influence Chinese Canadian seniors’ dietary needs, practices, and decision making regarding food choices.

Therefore, the main purpose of this study is to explore the contextual factors influencing the dietary practices of Chinese Canadian seniors that will contribute to the development of culturally effective health care programs that meet these seniors’ nutritional needs.

I am asking if you could identify Chinese Canadian seniors you think might be suitable for this study. These seniors should be 65 years of age or older, and live in their own home in Calgary. They may communicate in English, Mandarin, or Cantonese; and should be involved in making decisions regarding their diet, even when there are other persons who help purchase and prepare foods. If you think a senior could be a suitable participant, please ask him/her for permission to give his/her contact information to me, and I will get in touch with him/her to explain the study in detail. Please send me the contact information by email or telephone (see my contact information below). It is important that you do not give us any names unless you have the senior’s permission.
Appendix D

ECO-MAP SUPPORT INFORMATION

Participant Code Number: __________

**Formal Supports** (Supports from professional health care providers or government agency workers)

*(To be filled out by the interviewer and clarified with the participant after the interview)*

Who (relationship to person – not name)

Situation: 

Who (relationship to person – not name)

Situation: 

Who (relationship to person – not name)

Situation: 

Who (relationship to person – not name)

Situation: 

Who (relationship to person – not name)

Situation: 

(Attach additional data sheets as needed)
Appendix D (continued)

ECO-MAP SUPPORT INFORMATION

Participant Code Number: _________

**Formal Supports** (Supports from the family members and friends)

*(To be filled out by the interviewer and clarified with the participant after the interview)*

Who (relationship to person – **not name**)

Situation:

__________________________________________________________________________

Who (relationship to person – **not name**)

Situation:

__________________________________________________________________________

Who (relationship to person – **not name**)

Situation:

__________________________________________________________________________

Who (relationship to person – **not name**)

Situation:

__________________________________________________________________________

Who (relationship to person – **not name**)

Situation:

__________________________________________________________________________

(Attach additional data sheets as needed)
Appendix E

2nd INTERVIEW GUIDE QUESTIONS

When interviewing some Chinese seniors about their dietary practices, I obtained some of their opinions. In this interview, I would like to discuss these opinions with you. There are 11 questions regarding the opinions which from the first interview:

1) Appropriate diet for seniors should be a plain and balanced diet, and seniors need to eat less refined foods, what do you think these opinions reflect your dietary experience?

2) Chinese seniors have different ideas about diet, such as having a simple diet is fine; eat what I want; childhood dietary habits are significant; having upper class diets is necessary; need to consider family members’ dietary needs; eating with others (friends) is a significant social activity; and achieving an economical food budget …what do you think these opinions reflect your dietary experience? Or do you have different values of diet?

3) When Chinese seniors think about health information, they feel that they need more information about health in general when become old; and need to evaluate the health information learned. What do you think these opinions reflect your dietary experience?

4) What do you think about the influences of traditional health knowledge on Chinese seniors’ dietary practices?

5) Chinese seniors have difficulties (language barriers, financial issues, and inaccessibility) obtaining health information from health care services. What do you think about these opinions? Are there any other difficulties you think could prevent Chinese seniors from gaining health information?

6) Some Chinese seniors mentioned that it is difficult to follow health suggestions. What do you think about this opinion?

7) Having a Western-style diet is necessary when you live in host countries. What do you think about this opinion?

8) Aging and changed physical status influence Chinese seniors’ diet and related dietary practices. What do you think about this opinion?

9) Consideration of foods is important in Chinese seniors’ dietary practices, such as quality of foods (e.g., taste, fresh, safe or not), accessibility of foods, and availability. What do you think about these opinions reflect your dietary experience?

10) Having a healthy psychological status is important when seeking a high-quality life and diet. What do you think this opinion reflect your dietary experience?

11) Performing regular activities is important for having a high-quality life and diet. What do you think this opinion reflect your dietary experience?
Appendix F
Appendix G

CONSENT FROM

TITLE: Contextual factors influencing dietary practices of Chinese Canadian seniors: Elderly Chinese Canadians’ perspectives

SPONSOR: Faculty of Nursing, University of Calgary

INVESTIGATORS:
Principal Investigator: Dr. Tam Donnelly, Asst Professor, University of Calgary
Co-Investigator: Xianmei Meng, MN student, University of Calgary
This consent form is only part of the process of informed consent. It should give you the basic idea of what this research is about and what your activity will involve. If you would like more information, please ask. Take the time to read this carefully and to learn about any other information given to you. You will receive a copy of this form.

BACKGROUND
The Chinese community is the biggest minority group in Canada. Its aging population has increased a lot in the last few years. Compared to Chinese seniors in Asia and white seniors living in North America, aging Chinese immigrants in North America are at higher risk for some health problems (e.g., depression, mental health, heart disease, diabetes, and some types of cancer). This may be partly because of diet. Diet is important in people’s life. There are very few studies that have looked at what aging Chinese immigrants eat, and what causes them to choose the foods they eat.

WHAT IS THE PURPOSE OF THE STUDY?
The purpose of this study is to look at what affects aging Chinese Canadians’ diet. It will help health care providers in developing suitable healthy eating programs to meet these seniors’ diet needs.

WHAT WOULD I HAVE TO DO?
To learn about aging Chinese Canadians’ diet, we would like to know about what you eat and why you choose those foods, and what you know about a healthy diet. We would also like to know if any health care providers helped you with your diet choices.
To find answers to these questions, we would like to interview you two times. The second interview is to find further concerns based on the first interview. The student researcher Xianmei Meng (with/without an interpreter) will interview you in a language of your choice at the place that is easiest for you. The student researcher is fluent in Mandarin and English. If you can only speak Cantonese, an interpreter fluent in English and Cantonese will be at the interviews. Two interviews will be done on different days. Each interview will last 1-1½ hours. With your permission, we will record the interviews, translate into English, and then type the interviews out on paper.
Appendix G (continued)

To learn more about you, we would like to collect information about you, such as your age, whether you are married, etc. We are also interested in your support system (e.g., friends, family members, and other support).

**WHAT ARE THE RISKS?**

There should not be any harm to you because the researchers will keep your activity in the research private. We will not record your real name nor use it in any articles or presentations made from the research. There should be no physical harm to you. You might feel sad to tell your story. If so, we can help you find counselling or other services if you think that would help.

**WILL I BENEFIT IF I TAKE PART?**

If you agree to join this study, you may not get direct benefits. However, the information from this study may help health care providers in making suitable healthy eating programs for aging Chinese Canadians to improve their health status.

**DO I HAVE TO PARTICIPATE?**

It is your choice to volunteer to join the interviews for this study. Even if you join the study, you can choose not to answer any questions if you would not like to, you need only to tell the student researcher that you do not want to answer the question that is being asked. Then the student researcher will go on to the next question. You are free to leave the study at any time, and that will not affect your own health care with your doctor or other providers. If you want to leave the study, all you need to do is to contact the student researcher, and let her know that you have decided not to continue. You do not need to give a reason for leaving the study.

**WILL I BE PAID FOR PARTICIPATING, OR DO I HAVE TO PAY FOR ANYTHING?**

You will not get payment for joining this study. Also, you will not pay for it.

**WILL MY RECORDS BE KEPT PRIVATE?**

Only the researchers will be able to see the collected information. They are Dr. Tam Donnelly and the student researcher Ms. Xianmei Meng. Your real name will not be on the tapes and transcripts. Ms. Xianmei Meng will translate and transcribe the tapes privately. Once they are put into words, the transcripts and tapes will be kept in a locked cabinet and a coded computer. The tapes and transcripts will be destroyed seven years after the completion of the study.
Figure 2. Canada’s Food Guide to Healthy Eating


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Figure 2. Canada’s Food Guide to Healthy Eating (continued)

| Age in Years | Children  | Teen  |Adult  
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The chart above shows how many Food Guide Servings you need from each of the four food groups every day.

Having the amount and type of food recommended and following the tips in Canada’s Food Guide will help:

- Meet your needs for vitamins, minerals and other nutrients.
- Reduce your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Contribute to your overall health and vitality.
Figure 3. Food Guide Pyramid

From http://www.sf.med.va.gov/Nutrition/pyramid.htm
Figure 4. The Asian Food Guide Pyramid

From http://www.womenfitness.net/programs/nutrition/foodguidepyramid.htm#asian
Figure 5. A Chinese Adaptation of Canada’s Food Guide to Healthy Eating

A Chinese Adaptation of
Canada’s Food Guide
to Healthy Eating
For People Four Years and Over

Different People Need Different Amounts of Food
The amount of food you need every day from the 4 food groups and other foods depends on your age, body size, activity level, whether you are male or female and if you are pregnant or breast-feeding. That’s why the Food Guide gives a lower and higher number of servings for each food group. For example, young children can choose the lower number of servings, while male teenagers can go to the higher number. Most other people can choose servings somewhere in between.

Vegetables & Fruit

5 - 10

Milk & Foods High in Calcium

Other Foods

Taste and enjoyment can also come from other foods and beverages that are not part of the 4 food groups. Consuming fats, sweets and alcohol in moderation.

Enjoy eating well, being active and feeling good about yourself.

1) These Guides have been sponsored by the Ontario Women’s Health Council. The Council is fully funded by the Ontario Ministry of Health and Long-Term Care. The Guides do not necessarily reflect endorsement by the Ministry of Health and Long-Term Care.
3) Developed with the assistance of Registered Dietitians at the South Riverdale Community Health Centre, Toronto.

From http://www.opha.on.ca/resources/foodguides/chinese_eng.pdf
Figure 6. PRECEDE-PROCEED Model

Figure 7. ECO-MAP

ECO-MAP

Name __________________
Date __________________

SOCIAL
WELFARE

HEALTH
CARE

EXTENDED
FAMILY

WORK

CHURCH

RECREATION

EXTENDED
FAMILY

FAMILY OR
HOUSEHOLD

RECREATION

FRIENDS

SCHOOL

Fill in connections where they exist.
Indicate nature of connections with a descriptive word or by drawing different kinds of lines;
——— for strong, ———— for tenuous, ———— for stressful.
Draw arrows along lines to signify flow of energy, resources, etc. →→→
Identify significant people and fill in empty circles as needed.

Figure 8. Example of ECO-MAP

From http://www.uic.edu/nursing/genetics/Lecture/Family/ecomap.htm