Loneliness and Health Status of Chinese and Anglo-Australian Manningham Seniors

by

Teresa Nagorka-Tsindos

B.A., M.A.

Department of Health Services and Global Research

School of Public Health and Preventive Medicine

Faculty of Medicine, Nursing and Health Sciences

Monash University

Caulfield, Victoria 3162

Australia

Table of Contents

Summary

This thesis investigated whether there is a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors living in Manningham, a city characterised by green open space with relatively high household incomes. The thesis investigated the concepts of loneliness, health and place and explored influences of social determinants of health on the experiences and perceptions of the two groups, and was guided by the theory of 'Successful Ageing'.

The research followed a mixed methods sequential explanatory design which had three phases: (1) quantitative data collection, (2) qualitative data collection, and (3) integration of results. The quantitative phase utilised computer assisted telephone interviews to identify factors that contributed to loneliness using the shortened UCLA Loneliness Scale and self-reported health. Seniors from the quantitative phase comprised the sample group for the qualitative phase where face-to-face interviews and a focus group were undertaken to explore perceptions of loneliness, health, and neighbourhood to explore in more depth, the information provided by participants in the telephone interviews.

Results of quantitative analysis found a relationship between loneliness scores and self-reported health in Chinese and Anglo-Australian seniors. Results of t-tests and chi-squared tests indicated that ethnicity was significantly related to self-reported health. The relationship between loneliness and ethnicity was not established. While the mean loneliness scores between the two groups were similar, a higher proportion of Chinese seniors reported low levels of loneliness, and were nearly three times more likely than Anglo-Australian seniors to self-report poorer health.

Results of qualitative analysis revealed that while the majority of seniors stated they did not feel lonely, loneliness was described as: absence of an important relationship; absence of direction, a private experience, and incorporating despair. Health was conceptualised as functional, psycho-social, and healthy living (staying active). Relationships, being responsible for one's own health, and the place in which they lived were identified as important to health.

The results are integrated into three overarching conclusions: l) the concept of loneliness is neither well defined nor measured; 2) ethnicity and culture play a significant role in how

seniors conceptualise loneliness and health; and 3) common factors of lifestyle, place, sense of mastery and relationships are important contributors to / supporters of health as promoted by a social determinants approach.

The findings of this thesis provide valuable insight into the differences in conceptualisations of loneliness, health and successful ageing between Chinese and Anglo-Australian seniors which would be helpful to governments in the development and implementation of successful ageing plans. The findings contribute to the health promotion and successful ageing discourses on aspects of the influences of culture on living productive and healthy lives. The UCLA Loneliness Scale is not supported as a valid cross cultural instrument, nor is the proposition that loneliness is a uni-dimensional phenomenon. The addition of a fourth aspect for the theory of Successful Ageing - 'a positive outlook' - is proposed to help incorporate the lay perspective of successful ageing. This thesis proposes that loneliness and health can be more fully understood when contextualised within cultural perspectives.

Original Signed Statement

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other institution.

To the best of my knowledge the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signature of the candidate: ……...

Date: ……14 March 2014..……..

The research for this thesis received the Monash University Standing Committee for Ethical Research in Humans (2007002061-CF07/4746).

Acknowledgements

My journey lasted seven years and was completed successfully due to the support and guidance of many individuals. Although there are too many to include here, I would like to mention the special people who helped me along the way.

My thanks go to Professor Helen Keleher and Dr Charles Livingstone who supervised and advised me throughout my PhD journey. I am extremely grateful to Professor Colette Browning for her support and expert advice during the final phase of my journey.

Ruby Bredebusch, Xiao Jing Yang and Peony Cheng supported me with the Chinese interpretations and translations. I would not have been able to complete the non-English portion of my work without their help.

I would also like to thank Dan Russell for his generous advice about the UCLA Loneliness Scale.

Special thanks also go to my fellow PhD candidates – Nerida Joss and Darshini Ayton - who were a wonderful sounding board and support to me.

And finally, heartfelt thanks to Spero for his encouragement and love.

Glossary of Terms

Anglo-Australian Senior	An individual 65 years of age or older who does not identify with any ethnic group other than Australian, was born in Australia and lives in Manningham.
Chinese Senior	An individual 65 years of age or older who identifies as ethnic Chinese, was not born in Australia and lives in Manningham.
Culture	Criteria or guidelines for numerous activities that people have acquired through interaction and have learned to attribute to one another.
Health	A state of physical, emotional, mental and social well-being.
Loneliness	An unpleasant experience based on the perception that relationships are not satisfying.
Manningham Local Government Area	The geographical area covering the City of Manningham.
Melbourne Statistical Division	A large regional type geographical area also covering the City of Melbourne.
Senior	An individual who is 65 years of age or older (The United Nations uses age 60 to describe an 'older' person, however it is this researchers opinion that in a developed country with excellent health outcomes such as Australia, 65 is more appropriate).
Social Isolation	Lack of a network of relationships.
Social Support	Formal and informal social contacts.
Statistical Division	A general special area with population boundaries determined for census purposes. Each state and territory has one capital statistical division.
Successful Ageing	Avoiding disease and disability, engagement with life, and high cognitive and physical function (Rowe & Kahn 1997)

Abbreviations

A&DSS	Aged and Disability Support Services
CALD	Culturally and Linguistically Diverse
CATI	Computer Assisted Telephone Interview
CIV	Community Indicators Victoria
DALY	Disability Adjusted Life Year
DSM	Diagnostic and Statistical Manual of Mental Disorders
HILDA	The Household, Income and Labour Dynamics in Australia
IER	Index of Economic Resources
IRSAD	Index of Relative Socio-economic Advantage and Disadvantage
LGA	Local Government Area
MCHS	Manningham Community Health Service
MSD	Melbourne Statistical Division
NAATI	National Accredited Authority for Translators and Interpreters
NANDA	North American Nursing Diagnosis Association International
NESB	Non-English Speaking Background
SA	Successful Ageing
SDOH	Social Determinants of Health
SEIFA	Socio-Economic Indexes for Areas
SLA	Statistical Local Area
SOC	Selective Optimization with Compensation
VPHS	Victorian Population Health Survey

List of Tables

List of Figures

Chapter One - Introduction

Overview

> "*Man is ultimately and forever lonely whether his loneliness is the exquisite pain of the individual living in isolation or illness, the sense of absence caused by a loved one's death, or the piercing joy experienced in triumphant creation*".
> (Moustakas, 1961) p. ix)

Loneliness and health are common human experiences. They are central to people's life struggles, to ageing, and to human relations. Loneliness and health are experienced subjectively, making it difficult to attain systematic understanding of them. Each loneliness experience is different and deeply embedded within individual perceptions. Gaining a deeper insight into loneliness and health is challenging due to their complex and fluid natures.

Searching for information about loneliness and health yields a wealth of lay literature and policy literature as well as research reports. Cultural practices are often ignored in the research literature or appear irrelevant in relation to attempting to understand loneliness and health. The overwhelming influence of cultural practices indicates that they cannot be separated out from human experiences. Loneliness and health are experienced differently in different cultures, with descriptions of loneliness and health varying from significant to insignificant. Yet, there is little information about loneliness and health within different cultural contexts. The cross-cultural research reported in this thesis seeks to contribute to understanding loneliness and health in Chinese and Anglo-Australian seniors living in Australia. It adds complexity by locating the research within a social determinants of health framework and is guided by the theory of successful ageing.

Australia is a multicultural and ageing society. One of its largest and fastest growing communities is the Chinese community (Australian Bureau of Statistics, 2012). Yet there is little research about Chinese seniors living in Australia (Guo, 2005; Mak & Chan, 1995; Martin, 1998; Tsang, Liamputtong, & Pierson, 2004). Research about loneliness and / or health in Chinese seniors living in China (Beydoun & Popkin, 2005; Liu & Guo, 2007; Wu et al., 2010; Yang & Victor, 2008), Hong Kong (Chou & Chi, 2004; Chou & Mak, 1998; Lou &

Ng, 2012), and Taiwan (Cornman, Goldman, Glei, Weinstein, & Chang, 2003) is extensive. There are, however, only a handful of studies about loneliness and health in migrant Chinese seniors living in Australia (Blignault, Ponzio, Rong, & Maurice, 2008; Ip, Lui, & Chui, 2007).

According to the 2011 Census (Australian Bureau of Statistics, 2013a), Australia's population had grown to 21,507,717. People over the age of 65 made up 25.6% of the population, an increase of 1.4% since the 2006 Census. The proportion of people born in China was 1.5%. Mandarin 1.6% and Cantonese 1.2% were the languages most spoken by people at home other than English. The proportion of people speaking Chinese languages at home grew from 2.3% in the 2006 Census, to 2.8% by 2011.

The 2011 Census estimates the population of the state of Victoria, where this research is located, as 5,354,042. People over the age of 65 made up 14.2% of the population, an increase of .2% since the 2006 Census (Australian Bureau of Statistics, 2013c). Of people born overseas, 1.8% were born in China. Mandarin 1.9% and Cantonese 1.4% were the languages most spoken by people at home other than English. The proportion of people speaking Chinese languages at home grew from 2.7% in the 2006 Census to 3.3% by 2011. While reflecting much of the national demographic profile, Victoria has experienced greater growth in residents who identify as Chinese, and speak Chinese languages than the rest of the country.

The first Chinese settlers came to Victoria during the 1850's at the time of the European discovery of gold hoping to strike gold, and eventually moved into other businesses and established cultural and religious organisations (Immigration Museum, 2010). Policies restricting non-European migration were lifted in the 1970's, and the Chinese born population of Victoria nearly doubled to over 20,000 between 1986 and 1991 (Immigration Museum, 2010). The term 'Chinese' can be misleading as many groups identify as ethnic Chinese. Individuals who identify as ethnic Chinese can be born in China, Hong Kong, Malaysia, Singapore, Taiwan, or elsewhere. For the purposes of this thesis, in order to identify place of birth, Chinese individuals are identified as having been born in China, Hong Kong, Malaysia, Singapore, or Taiwan.

The literature concerning Chinese immigrants in Australia shows a lack of research concerning older Chinese immigrants and loneliness and health. Yet there are a large number

of older Chinese immigrants living in Australia. This research seeks to provide insight into the experiences of a group of Chinese seniors living in Australia, and to raise awareness of the importance of considering cultural practices when working with people of culturally and linguistically diverse backgrounds.

Thesis Rationale

My interest in loneliness, health and seniors developed while working as Manager of Aged and Disability Support Services (A&DSS) at Manningham City Council (the local government authority for the City of Manningham). Manningham City Council is located approximately 15 kilometres from the Central Business District (CBD) of Melbourne, Victoria and is a relatively advantaged area characterised by many resources and open spaces. Between 2006 – 2008, a substantial amount of anecdotal information about the circumstances of lonely clients became apparent to those working within the Aged and Disability Services Unit, and a number of Home Support Workers expressed the view that they played quite a large social support role in their client's lives, in addition to or regardless of the actual duties that they were supposed to be performing. As this information continued to circulate, it became clear that many clients were indicating they were lonely and / or socially isolated.

As the demand for general home care services increased, clients expressed a need for opportunities to connect with other people in a meaningful way. The demand for services providing opportunities to interact with others grew considerably in comparison to the growth in demand for 'maintenance' services (such as cleaning, respite, etc.). This emerged as one of the key differences between Manningham and other local government areas. I became interested in how connections were being formed and how they were maintained. I also became interested in the nature of the culturally and linguistically diverse (CALD) senior population – particularly the older Chinese population as they were (and continue to be) the largest CALD group in Manningham. Anecdotally, staff reported on Chinese and Anglo-Australian seniors who were in poor health, socially isolated and lonely. I formed the view that there were major differences in the experiences and understandings between Chinese seniors and Anglo-Australian seniors and became interested in identifying these differences. I also suspected that Chinese seniors, as a migrant group, might feel lonelier than Anglo-Australian seniors who had lived in Manningham for many years. After much thought and

discussion, I decided to investigate the differences in the perceptions and experiences of health and loneliness between Chinese and Anglo-Australian seniors living in Manningham.

One of the service areas that was introduced by Aged and Disability Support Services during 2001 was 'social support' (Snibson, 2001) which was funded by the Victorian Department of Human Services' Home and Community Care Core Planned Activity Groups program. Core Planned Activity Groups are described as "group sessions where the majority of consumers are physically independent and do not require personal care, specialist dementia care, or other types of specialist care, in order to participate in activities" (Department of Human Services, 2003). In Manningham, this service commenced as organisation and provision of social activities for healthy, active seniors (Snibson, 2001) and over the years grew into a broader service. Over time, it became clear that there was a group of largely unidentified isolated seniors who could benefit from a service that focussed on connecting them to others to help them develop caring and productive relationships. Although not recognised earlier by Manningham City Council management, it became increasingly clear that simply providing opportunities for seniors to participate in activities was, in fact, quite different to providing seniors with opportunities for relationship building. Management then acknowledged that there was need for seniors to engage with others at a deeper level than simply attending activities. The complexities around bringing seniors together to improve health and reduce loneliness laid the foundation for this research.

This cross-cultural research seeks to contribute to understanding loneliness and health in Chinese and Anglo-Australian seniors living in Australia. It adds complexity by locating the research within a framework formed by the social determinants of health and is guided by the theory of successful ageing. This is an important area to investigate because there is little research about the influences of general social, cultural and environmental conditions on loneliness and health in older people, particularly in the Australian context. As a result, interventions to address loneliness and health that do not consider the full range of factors that influence living and working, are less effective than those that consider such factors. There is a lack of knowledge and skills about how, in particular, to incorporate cultural practices and environmental influences to support successful ageing in older people. This represents a serious gap in the knowledge required to understand the similarities and differences between Chinese and Anglo-Australian conceptualisations of loneliness and health.

Australia is a Pacific island and relatively close neighbour to countries such as China, Japan, Taiwan and Malaysia, among others. Victoria, in particular, has a strong historical link to China dating from the period of the European discovery of gold (1850 - 1860). Currently, people who identify as ethnic Chinese (including older Chinese people) are among the largest growing non-Australian born people living in Victoria, and the largest group of non-Australian born people living in Manningham (the setting for this thesis). Therefore, their perceptions of loneliness and health are important and should inform the development and evaluation of policies and programs that concern Chinese people living in Australia. This is particularly so when these can be contrasted with the equivalent perceptions of a group of Anglo-Australians living within the same geographic area.

Aim of the Research

The aim of this research is to determine whether there is a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors, and to explore the influence of social determinants of health on the experiences and perceptions of the two groups with respect to loneliness, health and place. Guided by the theory of Successful Ageing and utilising a mixed methods design, the thesis examines quantitative, self-reported data and then explores the meanings behind the data through face-to-face interviews.

The over-arching research question is: how do particular social determinants of health (cultural, environmental, social and individual lifestyle factors) influence loneliness and self-reported health in Chinese and Anglo-Australian seniors? Conceived as one study, the complexity of the over-arching research question incorporates both quantitative hypotheses and qualitative questions, which are presented below.

Quantitative hypotheses:

1. There is a relationship between health and loneliness in Chinese and Anglo-Australian seniors,
2. Chinese seniors will experience higher levels of loneliness than Anglo-Australian seniors,
3. Chinese seniors will self-report poorer health than Anglo-Australian seniors.

Qualitative questions:

1. What can we learn from Chinese and Anglo-Australian seniors about loneliness by exploring their perspectives on health?
2. How does 'place' (in this case, a neighbourhood that experiences relatively good population health outcomes) appear to influence the health of Chinese and Anglo Australian seniors?

Scope

A brief description of core concepts relevant to this research - loneliness, health, successful ageing, and social determinants of health, including place and cultural background - follows with a more developed exploration of these concepts in Chapters Two and Three.

Loneliness

Loneliness is not a simple, uni-dimensional phenomenon, nor a concept that is consistently defined. Marangoni and Ickes (1989) summarise this well: *" loneliness is a relatively ambiguous internal state lacking a single, unique set of defining cognitions, emotions, or behaviour"* (p. 104). While researchers often do not agree on the conceptual constructs of loneliness, definitions of loneliness have a common thread running through them, which is that loneliness tends to be an unpleasant experience characterised by some sort of deficiency in intimate relationships, including a feeling of lack of fulfilment, and separation from others. As a subjective phenomenon, each experience is different, making a single definition impossible. However, Peplau and Perlman's (1982) description of loneliness as a perception that relationships are not satisfying regardless of the size / adequacy of social relationships, is used throughout this thesis as the understanding of loneliness. While loneliness is often used throughout the social sciences literature interchangeably with emotional isolation, social isolation and social support (Weiss, 1973), loneliness as a core concept in this thesis refers to a subjective sense that relationships are not satisfying. Key concepts, prevalence and measures of loneliness are described in Chapter Three.

Health

The conceptualisation of health is complex and it is not the purpose of this thesis to provide a thorough review of the history of health and health concepts. This thesis reviews health and

health concepts in relation to a specific setting: ageing, loneliness and place in two ethnically-defined groups of seniors. The World Health Organization (1946) defined health as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"*. Contemporary definitions emphasise health as capacity for living and encompass individual perspectives on health in relation to their environment regarding health as a resource for people's lives (Keleher & MacDougall, 2009). A link has been established between loneliness and poorer health (House et al., 1994) in the field of loneliness research (Alpass & Neville, 2003; Barg et al., 2006; Berkman & Syme, 1979; Boomsma, Wilemsen, Dolan, Hawkley, & Cacioppo, 2005; Cacioppo, Ernst, Burleson, & et al, 2000; West, Kellner, & Moore-West, 1986) and the link in relation to self-reported health is investigated in this thesis. Examination of the similarities and differences in the conceptualisations of health between Chinese and Anglo-Australian seniors, as well as from the perspective of Eastern and Western cultures, is also undertaken in Chapter Three.

Successful Ageing

'Successful Ageing' refers to Rowe and Kahn's (1997) published model of human ageing, 'usual and successful'. They focussed on the positive aspects of ageing and actively promoted the separation of pathological changes from the progress of ageing in order to define normal ageing. Rowe and Kahn defined successful ageing as:

> *"Low probability of disease and disease-related disability, high cognitive functional capacity, and active engagement with life ... successful aging is more than absence of disease, important though that is, and more than the maintenance of functional capacities, important as it is. Both are important components of successful aging, but it is their combination with active engagement with life that represents the concept of successful aging most fully"* (p 433).

While Depp and Jeste (2006) identified 29 different definitions of successful ageing, Rowe and Kahn's theory is used for the purposes of this thesis due to their basic constructs. These include full physical function (physical health / ADL independence / independence), high cognitive function (cognitive health / psychological well being) and active engagement with life (participation / leisure) as the original and most commonly used core domains in definitions of Successful Ageing (Browning & Thomas, 2007). Chapter Two outlines

theories of Successful Ageing and a detailed review of Rowe and Kahn's (1987) theory of Successful Ageing.

Social Determinants of Health

"Social determinants of health are the conditions in which people are born, grow up, live, work and age" (World Health Organization, 2013). An integrated view of the many factors that influence all aspects of living and working was developed by Dahlgren and Whitehead (1991) who examined how social, environmental, cultural and lifestyle forces act on the health of individuals. General socio-economic, cultural and environmental conditions include: education, agriculture and food production, the work environment, unemployment, water and sanitation, health care services and housing. Social and community networks as well as individual lifestyle factors (age, gender and constitutional factors) were also included as important influences on health. For the purpose of this thesis, the setting of the research is considered important because Manningham is a relatively advantaged area characterised by primarily substantial detached housing, and low unemployment. Residents have higher than average education and access to universal health care services (id consulting, 2009). Considering Manningham an area of relative advantage, this thesis seeks to understand how the specific influences of living (place) and cultural conditions (Chinese and Anglo-Australian) may contribute to successful ageing. Successful Ageing is integrated with a Social Determinants of Health framework in Chapter Two to help understanding of social and cultural influences on ageing.

Place

Place or neighbourhood can be defined in a number of ways including via utilising descriptive and subjective factors such as size, geographical boundaries and resident perceptions (Diez-Roux, 2003), as well as via the impacts of many influences (i.e., country, state, municipality, suburb, workplace, school). Neighbourhoods may also be defined as communities of interest, and these communities of interest are often much broader than geographical neighbourhoods (Macintyre, Ellaway, & Cummins, 2002). The setting for this thesis is the relatively socio-economically advantaged (and, in those terms, primarily homogeneous) local government area of Manningham, located in metropolitan Melbourne, the capital city of Victoria. The details of the setting are presented later in this chapter. The concept of neighbourhood and its relationship to loneliness and health are explored in

Chapter Three. The attachment or relationship of Chinese and Anglo-Australian seniors to Manningham is explored in Chapters Six and Seven.

Cultural Background

There are many definitions of culture arising from the complexity of the concept. For the purpose of this thesis, however, culture refers to:

> *the criteria or guidelines for speaking, doing, interpreting, and evaluating that people who live and work together have acquired in the course of interacting with one another in the conduct of recurring activities and that they have thus learned to attribute to one another* (Goodenough, 1999) p. 85

In addition, the definition of an ethnic group is helpful considering this thesis focuses on seniors who identify as ethnic Chinese. Goodenough describes an ethnic group as:

> *a set of people whose members appear to others (and often to themselves) as being similar in language or cultural traditions (such as religion) in contrast with other such sets. An ethnic group also may, but need not, be a society*." (p. 85)

When examining differences between eastern and western cultures as well as ethnic groups, concepts describing the relationship between individuals and society, such as those embodied in the terms 'individualism' and 'collectivism', are often used. Individualism has been defined as a social system characterised by loosely linked individuals who rationally analyse relationships and place their individual needs / rights / goals above others (Triandis, 1995). Collectivism has been defined as a social system characterised by closely linked individuals who see themselves as part of a group, accept the group norms and place the group needs / rights / goals above their own (Triandis, 1995). Cultural practices vary enormously and individuals can maintain values that differ from their cultural setting. The popular assumption about Chinese culture is that it is a collectivist culture (Gallo, 2008; Hofstede & Bond, 1984; Leung & Bond, 1984; Triandis, 1995). Traditional Chinese cultural values are still in evidence in older Chinese people, with a highlight on respect for age / position, concept of face, importance of relationships and group orientation (Lockett, 1988). While all cultures evolve and change, in general in traditional Chinese (Confucian) culture, collectivism is valued and supports the group while individualism is considered selfish. Traditional Western cultures generally value individualism and embody freedom, personal

responsibility and well-being (Ho & Chiu, 1994; Triandis, 1995). In an individualist culture such as traditional Anglo-Australian, individuals tend to view relationships as external to themselves (Gallo, 2008; Ho & Chiu, 1994). By contrast, in a collectivist culture such as traditional Chinese, individuals are embedded in relationships. These collectivist and individualist concepts are further explored in Chapter Three.

Cultural background affects the way individuals cope with loneliness and Western concepts cannot be used universally in non-Western cultures (Jylha, 2003; Rokach, 1999; van Tilburg, de Jong Gierveld, Lecchini, & Marsiglia, 1998). *"The experience of loneliness is varied depending on one's culture, background, and age group"* (Rokach & Bauer, 2004) (p. 12). The concept of filial duty and good social relationships is particular to the Chinese culture and underlies the importance of social relationships for Chinese seniors with interpersonal harmony cited as a key element in maintaining mental health (Hsiao, Klimidis, Minas, & Tan, 2006).

Successful Ageing and Health in Context

The World Health Organization has identified population ageing as a triumph in health for humanity (World Health Organization, 2001). However as healthier populations age, complex issues arise for relevant organisations, governments and individuals. For governments, the ability to manage a large, ageing population while ensuring good health outcomes and general well-being remains a major challenge.

Australia is not unlike the rest of the developed world and has an ageing population. According to the Australian Bureau of Statistics (2007) life expectancy in Australia is continuing to increase, such that the average Australian boy born in 2004-2006 would expect to live to 78.7 years and the average Australian girl born in 2004-2006, would expect to live to 83.5 years. An Australian male living in the state of Victoria in an area of relatively high advantage can expect to live to 81.7 years and an Australian female in the same area can expect to live to 84.9 years (Department of Health Victoria, 2011). With increasing life expectancy and the age of retirement in Australia generally between 55 and 65 years, there may be a number of concerns around how population ageing can be managed positively for all concerned to ensure seniors continue to contribute to society in a meaningful way. Questions remain unanswered about how seniors can continue to be active and engaged in their later years. Concerns centre on the negative implications of ageing including declining

health, reduced mobility, insecure home ownership, financial independence and community connectedness (Productivity Commission, 2005).

The World Health Organization, in the Introduction to *Active Ageing A Policy Framework* (2002) clearly considers how people can be helped to remain active and independent, and improve their quality of life as they grow older. The Report argues,

> *"in all countries ... measures to help older people remain healthy and active are a necessity, not a luxury"* (p. 6).

The report also discusses the importance of psychological and social factors in maintaining healthy ageing. Loneliness and isolation are specifically mentioned as factors that trigger lowered cognitive functioning, although advancing age is often blamed for this.

> *"Inadequate social support is associated not only with an increase in mortality, morbidity and psychological distress but a decrease in overall general heath and well-being"* (p. 28).

> *"The social environment within which people grow older is rapidly changing … The size of families is decreasing, the role of extended families is diminishing, and perceptions of intergenerational support and caring for older persons are rapidly changing"* (United Nations, 2007, p. viii).

The Australian Government, the Victorian State Government and Victorian Local Governments have invested time and energy in reviewing issues around ageing. Multiple reports (Australian Local Government Association, 2006, 2007; Department for Victorian Communities, 2007; Department of Health and Aged Care Office for Older Australians, 2000; Department of Human Services, 2001; Department of Planning and Community Development, 2010; Hogan, 2004; Productivity Commission, 2005) illustrate the attention the three levels of Australian governments have paid and are paying to the issue of ageing. Governments are concerned about economic issues primarily. These include: subsidising the cost of chronic disease in older people, how the extended length of time in retirement can be funded, and how older people can continue to contribute to the economy whether they are working or not. These reports make the case for successful ageing and urge researchers to

invest time to understand how older Australians can lead physically and cognitively healthy, and engaged lives.

Place as a Determinant of Health

There is general agreement that a relationship exists between health and neighbourhood (or place), although 'neighbourhood' itself can be defined in a number of ways. Factors such as size, geographical boundaries and resident perceptions need to be considered when defining a neighbourhood (Diez-Roux, 2003). Neighbourhoods exist within larger communities, and the impacts of such multiple communities (i.e., country, state, municipality, suburb, workplace, school) on neighbourhood need to be considered. Neighbourhoods also might be defined as communities of interest, and these communities of interest may be much broader than geographical neighbourhoods (Macintyre, et al., 2002).

Regardless of how neighbourhoods are defined, their relationship to health appears strong (Macintyre & Ellaway, 2003; Macintyre, et al., 2002). Whether the relationship between health and neighbourhood is due to individual socioeconomic characteristics (who you are) or neighbourhood level characteristics (where you live) is less clear. This lack of clarity can be attributed to the complexity of the relationships. Health and place are related to both individual and neighbourhood level characteristics. Individual characteristics or neighbourhood characteristics are often referred to as 'compositional' or 'contextual' effects (Macintyre & Ellaway, 2003). 'Compositional' refers to individual level characteristics such as disability, educational achievement, and income. 'Contextual' refers to area level characteristics such as socio-economic status and resources. Macintyre and Ellaway refer to the distinction between compositional and contextual effects as artificial due to the complex interrelationships between people and place. They argue that both neighbourhood and individual characteristics are important for understanding how neighbourhood and health interact, and that both the social environment and physical features are important when examining contextual influences on health.

Consistent with the Social Determinants of Health framework, Macintyre and colleagues (2002) identify five general aspects of local areas that may impact on health. These are: physical features shared by all (i.e., air, water, climate); home / work / play environments; public and private services (i.e., policing, education, welfare services); socio-cultural aspects

(i.e., cultural history of the area, values, crime levels); and area reputation (perception of area by residents and others).

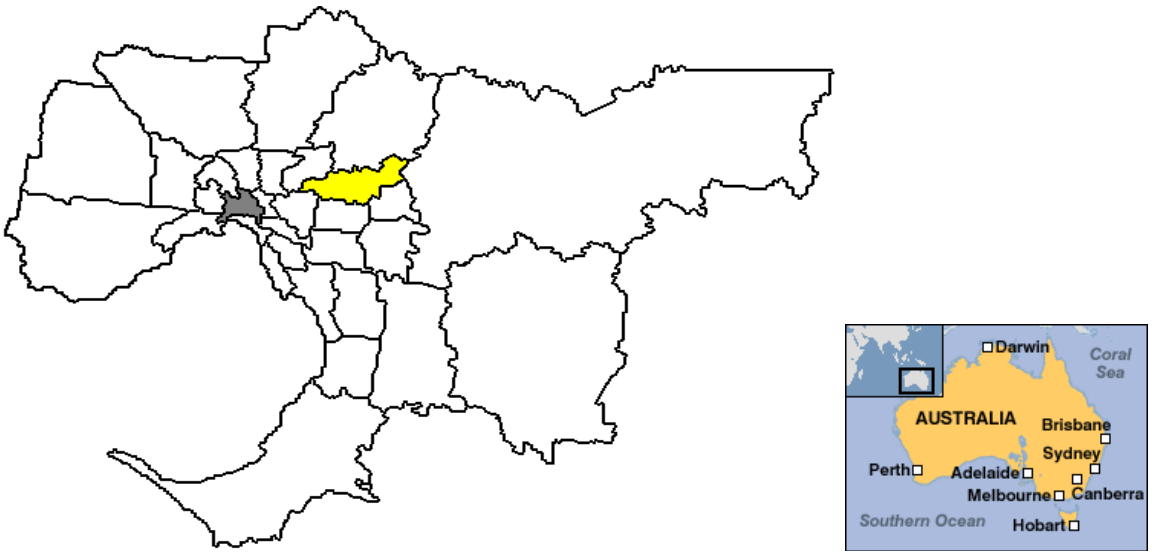
A framework of universal human needs can (and arguably should) be used to better understand how health is influenced by place instead of concentrating on an 'either-or' dichotomy (Macintyre, et al., 2002). Arguing that it is unhelpful to oppose context and composition, Cummins and colleagues (2007) note that both are important in understanding the impact on health. Cummins and colleagues' emphasis on understanding all conditions supports the Social Determinants of Health framework. They promote a 'relational view' of places which concentrates on the *"processes and interactions occurring between people and places and over time, which may be important for health"* (p. 1828). They emphasise the need to combine the views of residents with specific measures to understand the relationship of health and neighbourhood, and argue against traditional, special descriptors of place. Wen and colleagues (2006) contend that the perceived quality of the neighbourhood (in particular, perceived physical environment rather than social environment) has impacts on self-reported health and should be considered a separate construct to objective neighbourhood characteristics. High individual socio-economic status (SES) and positive perceptions about neighbourhood quality are associated with better ratings of health (Olsen & Dahl, 2007; Wen, et al., 2006). Additionally, perceived neighbourhood quality is very important to self-reported health even after all other factors have been controlled for. Wen and colleagues (2006) noted that relying only on census data to describe neighbourhoods does not capture the whole picture or relationship between neighbourhood and health. They found that neighbourhood perceptions were related to individual well-being, and that perceptions about the physical environment played a bigger role in health than perceptions about the social environment.

With the relationship between socio-economic status and health well established (Huisman, Kunst, & Mackenbach, 2003; Kawachi, Subramanian, & Almeida-Filho, 2002; Marmot, 2001; Pickett & Pearl, 2001; Wen, Browning, & Cagney, 2003), the following section further describes Manningham, an area where population characteristics indicate residents are of relatively high socio-economic status and comparatively good health.

The Research Setting

Manningham is a suburban local government area within the boundaries of metropolitan Melbourne, occupies 114 square kilometres, and has a population of approximately 111,300 people (Australian Bureau of Statistics, 2013b). Figure 1 shows where Melbourne is placed within Australia as well as Manningham's proximity to the Central Business District.

Figure 1 Map of Melbourne



Map of metropolitan Melbourne, Victoria (Australia)
LGA of Manningham highlighted in yellow, Melbourne CBD highlighted in grey

LGA of Manningham City Map of Australia (2008)

Manningham is in the top 7% of local government areas in Victoria for life expectancy, with life expectancy for males at 81.4 years (4th) and life expectancy for females at 85.3 years (6th) (Department of Health Victoria, 2011). Manningham has an ageing population (as does almost every municipality in Victoria) with 19.3% of the population aged over 65, an increase of 2.7% since the 2006 Census (id consulting, 2013). The largest growth in population between 2006 and 2011 was for the 60 years and above age groups. Manningham City Council estimates predict that by 2021, the number of residents over age 65 will increase by 8,956 (48.1%) and represent 22.1% of the population (2013).

Manningham has a culturally diverse population with 39% of the population born overseas and 38% of residents over the age of 70 speaking a language other than English at home (Migrant Information Centre Eastern Melbourne, 2013). Of Manningham residents born

overseas, 5.9% were born in China, with Chinese languages (Mandarin 7.9% and Cantonese 6.2%) the language most spoken by people at home other than English (Australian Bureau of Statistics, 2013b). The proportion of people speaking Chinese languages at home grew from 11.7% in the 2006 Census, to 14.1% by 2011.

Table 1 describes the top three identified ancestries (the cultural association and ethnic background of an individual going back three generations) in Manningham, Greater Melbourne, and Victoria. The proportion of Manningham residents who identified as Chinese was 17.4%, an increase from 14.3% in 2006. This is the largest identified ancestry group in Manningham after English (22.0%) and Australian (21.0%), and is three and one-half times more than the proportion of people with Chinese ancestry in Victoria generally. Of the other Australian capital cities (Adelaide, Brisbane, Canberra, Darwin, Hobart, Perth and Sydney), only Greater Sydney lists Chinese ancestry in the top five, reported at 6.5%. While Greater Melbourne is comparable to Greater Sydney regarding Chinese ancestry, it is clear that Manningham has a much larger proportion of people who identify as Chinese than Greater Melbourne, Greater Sydney or Victoria. For comparison, New York City, USA has the highest Chinese population outside China (14.4%) (Ameredia, 2012). While New York City is much more densely populated than Manningham, Manningham has a greater proportion of people who identify as Chinese.

Table 1 Ancestry Manningham, Greater Melbourne, Victoria

Manningham	**2011 %**	**2006 %**	**Greater Melbourne**	**2011%**	**2006 %**	**Victoria**	**2011 %**	**2006%**
Chinese	17.4 (19,318)	14.3 (15,679)	Chinese	6.1	5.0	Chinese	4.8	3.9
Italian	11.4 (12,717)	11.5 (12,693)	Italian	7.0	7.2	Italian	6.1	6.3
Greek	8.9 (9,927)	9.1 (10,032)	Greek	3.9	4.1	Greek	3.0	3.2

(id consulting, 2013)

The number of older, more established Greek and Italian born residents is declining, with a newer wave of Chinese / Malaysian / Singaporean born residents increasing. Between 2006 and 2011, Manningham's ageing population grew more quickly than National or Victorian

averages. Additionally, the proportion of Manningham residents speaking Chinese languages at home is nearly four times greater than National or Victorian averages. Manningham has experienced growth in its ageing population and rapid growth in residents who identify as Chinese.

Between 2001 and 2006, Manningham's population of China born residents increased 31% (Victorian Multicultural Commission, 2009). It is one of the fastest growing communities comprised primarily of skilled migrants, newly arrived students, and / or family members through family reunion schemes. Manningham has the third highest concentration (8.0%) in Victoria of China born individuals, and the highest concentration in Victoria of China born individuals (China and Hong Kong) over 65 years of age (14.1%) (Ethnic Communities Council of Victoria, 2008). The highest concentration of Hong Kong born Chinese in Victoria live in Manningham (15.8%); and Manningham has the fourth highest concentration of both ethnic Chinese Malaysians (8.6%) and Singapore born ethnic Chinese (6.5%). Manningham has the third highest concentration of Taiwan born ethnic Chinese (12.5%) (Victorian Multicultural Commission, 2009).

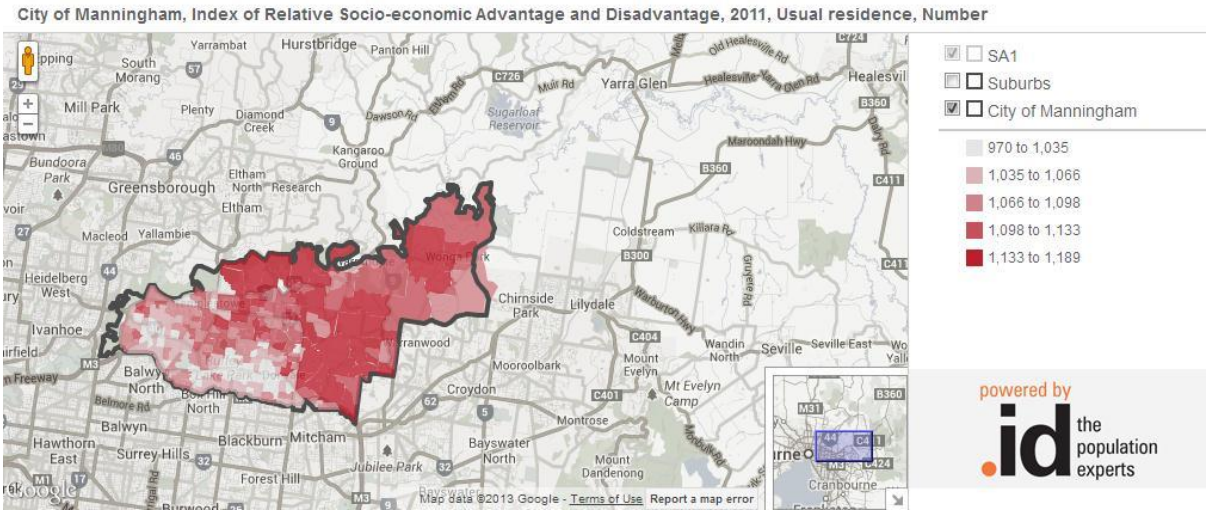
There are a number of issues particular to ethnic Chinese communities including the irreplaceable function of the family in Chinese society, which support highly respected status for older people, and the expectation that Chinese elders should age at home (Chow, 1996). While the desire to remain at home with family and be supported by the family in old age remains strong in many Chinese seniors, the industrialisation of society has meant that these desires are often no longer met (Chow, 1996). The key to being supported by the family lies in filial piety – as long as filial piety is internalised and practiced, elders will continue to be supported by their families (Chow, 1996). Similar to other migrant groups, Chinese seniors living in a setting such as Manningham may, over time, maintain an ideal of their culture which moves further away from the reality of their culture (Gupta & Ferguson, 1992; Yu., 2005). They may continue to believe that the 'older' ways are the ways of the present and even the future. It is reasonable to assume that Chinese seniors moving into Manningham would expect their children to be (or become) more westernised.

Manningham supports a diverse, ageing and active population within high quality residential areas characterised by green open space, rolling hills, and low to medium density housing (9.52 people / hectare) (Manningham City Council, 2010). Walking around Manningham, the impression is of an advantaged area with many parks, many large and relatively new

homes with well maintained gardens, clean and quiet streets, friendly residents, and minimal visible public transportation. The air is clean and fresh, traffic noise is minimal, freeways are hidden behind well constructed barriers, two large shopping malls co-exist with numerous small shopping strips, many sporting grounds are evident and the hilly landscape provides interesting views of suburbs. Unlike other parts of inner Melbourne, which is served by trains and trams, public transport infrastructure in Manningham is limited to buses. Residents tend to experience good health outcomes, and when questioned express satisfaction about living in Manningham (Manningham City Council, 2007).

The Australian Bureau of Statistics Census data on Socio-Economic Indexes for Areas (SEIFA) (2011) provides a ranking of cities, towns and suburbs across Australia on the basis of relative socio-economic status. Manningham's SEIFA score is the seventh most advantaged of the 78 local government areas in Victoria on the Index of Relative Socio-Economic Advantage and Disadvantage. However, as Figure 2 displays, when examining Manningham in detail, it is clear that there is significant variation of the proportion of low income households across Manningham's suburbs, which varies between 6.9% and 19.5% of households (id consulting, 2013). While there is little information available about why this variation exists, service providers in Manningham report that the low-income households include older people living on income generated from pensions only. The lower income suburbs are also the oldest suburbs of Manningham.

Figure 2 SEIFA Map



Manningham is a diverse area with generous green and open space; high life expectancy (in the top five local government areas in Victoria); an ageing population with one in five people

over age 60; 36.5% of the population born overseas; and a large ethnic Chinese population (in the top four local government areas in Victoria). There are a number of challenges for older people living in an area with rolling hills, large areas of open space and limited public transport. Being able to move freely around the municipality is constrained unless driving a car. Independence for older people is often associated with car ownership and the implications of not being able to travel independently cannot be underestimated. Buses do not travel into smaller streets, and with many of the streets in hilly areas, some older people are not able to walk to larger streets where buses travel. Additionally, access to areas of open space is limited by the ability to walk freely. These areas do not encourage participation by older people with limited mobility.

House allotments tend to be large and many are surrounded by fences. While broad demographic data indicates Manningham is relatively advantaged, as Figure 2 demonstrates, there are some areas of lower income households that are hidden from view.

There is stigma associated with living in an advantaged area, whilst not possessing the resources to live an advantaged life (Warr, 2006). With more than one-quarter of residents aged over 60 years, the Manningham community is confronted by a range of issues such as universal access to community amenities, community services, public transport, housing, and infrastructure, amongst others. If the needs of the growing population of older people are to be met, planning to address these needs must be undertaken well in advance of requirements.

The concept of cultural diversity in Manningham is promoted by the local Council, yet the Council offices have no signs in languages other than English. It appears that little thought has gone into accommodating non-English speaking older people, even in this most basic aspect. While the largest ethnic population living in Manningham is Chinese, the municipality shows little evidence of this with the exception being a number of Asian restaurants. Even though 36.5% of all residents were born overseas (compared to 26% for Victoria), Manningham still looks like an Anglo-Australian, upper middle-class suburb.

Generally, Manningham is not a unique Australian local government area. The implications for older people in regards to strategic planning, policy development and program delivery can be generalised to many similarly advantaged areas within Australia. Challenges in ensuring older people can access public transport, travel independently, find appropriate housing, and participate fully in their communities are not limited to this one local

government area. However, the insights gained from this research have important policy implications for people ageing in a new country. This research attempts to raise awareness of the importance of considering cultural practices, particularly as regards health and loneliness, when working with older people of culturally and linguistically diverse backgrounds.

Overview of the Research

To achieve the aim of determining whether there is a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors, and exploring the influences of social determinants of health on the experiences and perceptions of the two groups with respect to loneliness, health and place, Chapter Two outlines Rowe and Kahn's (1987) theory of Successful Ageing as the theoretical framework for this research and includes its history, criticisms and application across cultures. Related concepts such as positive ageing, active ageing and healthy ageing are defined, and psycho-social perspectives of Successful Ageing are discussed. Lay perceptions of Successful Ageing are examined, and Successful Ageing is integrated with a Social Determinants of Health framework to help understanding of social and cultural influences on ageing. Loneliness is presented as a component of the determinants of health.

Chapter Three presents a literature review of core concepts including loneliness, health and culture as they relate to Chinese and Anglo-Australians. Social and emotional loneliness are reviewed as are prevalence and measures of loneliness. The concepts of stigma, sense of mastery, collectivism and individualism, Western and Eastern concepts of health, self-reported health, health and socio-economic status, neighbourhood and place are explored through a Social Determinants of Health lens. Chapter Three presents the divergent perceptions around health and culture for these two groups.

Chapter Four presents the research methodology, including study design, data collection and analysis. The sequential exploratory mixed methods design is described and justified with the quantitative, intermediate, qualitative, and triangulation phases detailed.

The research results are described in Chapters Five and Six. In Chapter Five, the quantitative results are described. Inferential and descriptive statistics are presented and the relationships between loneliness and self-reported health, loneliness and ethnicity, various categories of self-reported health and ethnicity, and social patterns and ethnicity are described. Chapter

Six presents the qualitative results and a discussion of the findings. Major themes about loneliness, health and place emerging from semi-structured, face-to-face interviews and a focus group are described.

Chapter Seven integrates the quantitative and qualitative phases and discusses the main findings of the thesis about ethnicity, loneliness, lifestyle, place, self-responsibility and relationships. An action model in response to perceived loneliness is presented. Common themes consistent with the theory of successful ageing and the social determinants of health view are discussed.

Chapter Eight presents the strengths and limitations of the thesis, suggestions for further research, and implications for government policy. The significant contribution to understanding the role of cultural practices in the concepts of loneliness and health and Chinese seniors living in Australia, is discussed.

Conclusion

This first chapter set out the context and structure of the thesis – the relationship between loneliness and self-reported health in Chinese and Anglo-Australian seniors. The chapter commenced with a description of multicultural Australia and an exploration of Chinese settlement in Victoria. The thesis rationale, the aim and scope of the research were presented with an explanation of the core concepts used throughout the thesis: loneliness, health, Successful Ageing, Social Determinants of Health, place and cultural context. Background to the research was presented along with information about the local government area of Manningham - the research setting. The information about Manningham was provided to set the scene for the research, describe Manningham's social contours, and to place the research into context.

Chapter Two – Theories of Successful Ageing

Introduction

Chapter One provided the thesis rationale, background, aim and scope of the research. Core concepts were defined, and information about the local government area of Manningham was provided to contextualise the research setting. The thesis structure was presented. This Chapter outlines theories of Successful Aging and provides a detailed review of Rowe and Kahn's (1987) theory of Successful Ageing, including its history, criticisms, and application across cultures. Related concepts such as positive ageing, active ageing and healthy ageing are defined, and psycho-social perspectives of Successful Ageing are discussed. Lay perceptions of Successful Ageing are examined, and Successful Ageing is integrated with a Social Determinants of Health framework to help understandings of social and cultural influences on ageing.

Theories of Ageing

Theory is *"an attempt to explain"* (Bengtson, Gans, Putney, & Silverstein, 2009, p.4) and theorising is *"a process of developing ideas that allow us to understand and explain empirical observations"* (p. 4). In the complex and multi-faceted area of ageing, theories assist in identifying what to pursue, and why that knowledge or outcome is important. Theory allows us to select those empirical facts we regard as most significant from the endless stream of facts in order to make sense of and account for what we experience in a complex environment.

Theories relating to ageing have been prominent since ancient times (Achenbaum, 2009). In modern times, theories of ageing have grown substantially as the field of ageing research has been expanded. For example, in the early 1990s, Medvedev (1990) noted that there were already 300 biological theories of ageing, with the number continuing to grow. The number and range of psychological, social and cultural theories about ageing has also continued to grow.

Theories on ageing are most commonly aligned to disciplines of: biology, psychology, sociology, social science, and public policy. Theories of biological ageing cover

physiological components of bodily decline (Bengtson, et al., 2009; Quadagno, 2009). Theories incorporating psycho-social views on ageing include life course and life span theories, cognitive change, adaptation, social networks, emotional regulation, cultural values and positive ageing (Bengtson, et al., 2009; Quadagno, 2009; Torres, 2006). Psycho-social theories tend to focus on the individual and his / her adjustment to ageing through roles, relationships and status. These include life-span theories (among others) such as disengagement theory and activity theory, which are described in more detail later in this chapter. Social science theories often incorporate cumulative advantage, disadvantage and inequity focussing on social class and cultural diversity, and are often grounded in phenomenology, social constructionism and / or feminism (Bengtson, et al., 2009). Theories of ageing which include societal implications and public policy consider economic inequalities, globalisation and its impacts, collective identities, and social aspects of ageing that inform policy (Bengtson, et al., 2009).

Many prominent ageing theories referred to throughout the gerontological literature comprise modern conceptualisations of ageing such as the life course perspective, longevity / anti-ageing, successful / productive ageing, disengagement and activity theory (Achenbaum, 2009). The range of theories on ageing reflects the increased interest in understanding and explaining the complexities of the ageing process, and also the diversity of views about ageing.

Early work in ageing focussed on the negative biological aspects and losses associated with growing old and sickness, such as wear and tear accumulation, cellular damage, and specific tissue changes (Medvedev, 1990; Nascher, 1909; Quadagno, 2009; Warren, 1946). Social researchers such as Cavan and colleagues (1949) identified, however, that physical and mental decline was not an inevitable part of ageing, and proposed that those older individuals who continued to be active and lead productive lives were well adjusted.

Following Cavan and colleagues' work and the gradual shift in ageing theories from declining health to optimising health, two theories of ageing came to prominence around 1960 - Disengagement theory (Cumming & Henry, 1961) and Activity theory (Havighurst, 1961). Disengagement theory proposed that as individuals age, they naturally withdraw from and decrease interaction with the world around them in preparation for eventual death (Cumming & Henry, 1961). The withdrawal from and reduced interaction with society was thought to promote self-reflection and allow for well considered generational transfers of

knowledge and power. Cumming and Henry suggested that disengagement was universal, inevitable and intrinsic, as well as applicable across all cultures. Their theory was criticised for its universalising, inevitable nature, and for not taking into consideration the host of other factors that relate to ageing such as family bonds, socio-economic status and self-mastery (Achenbaum, 2009).

Activity theory arose in direct contrast to Disengagement theory and proposed that as individuals age they maintain activity and social connections from mid-life, substituting new activities or relationships as old ones are lost (Havighurst, Neugarten, & Tobin, 1968). Havighurst and colleagues accepted that disengagement occurred, but proposed that it occurred against the desires of the ageing individual. Havighurst and colleagues (1968) argued that successful ageing meant actively maintaining meaningful relationships and actively maintaining the pursuit of meaningful activities. Havighurst (1961) wrote extensively, defining the theory of successful ageing as,

> *"a statement of the conditions of individual and social life under which the individual person gets a maximum of satisfaction and happiness and society maintains an appropriate balance among satisfactions for the various groups which make it up – old, middle-aged, and young, men and women, etc*." (p 8).

Successful ageing was dependent upon maintaining physical and mental activity with a refusal to acknowledge the limitations of ageing. Havighurst (1968) suggested that most older people would and could lead happy and satisfying lives. He also proposed that individual personality defined whether or not an older person would remain active and be satisfied with his / her life. Although activity theory has been criticised for its universalising nature, Havighurst (1961) accepted that there could not be one simple theory of successful ageing because individuals experience the process of growing old in many different ways.

In contrast to biological models, Disengagement and Activity theories described two psycho-social models (of many) that proposed how individuals adapt and change as they age. Neither theory explains the full range of ageing experiences of older people, yet both provide insight into the ageing process from two distinctly different and influential psycho-social perspectives.

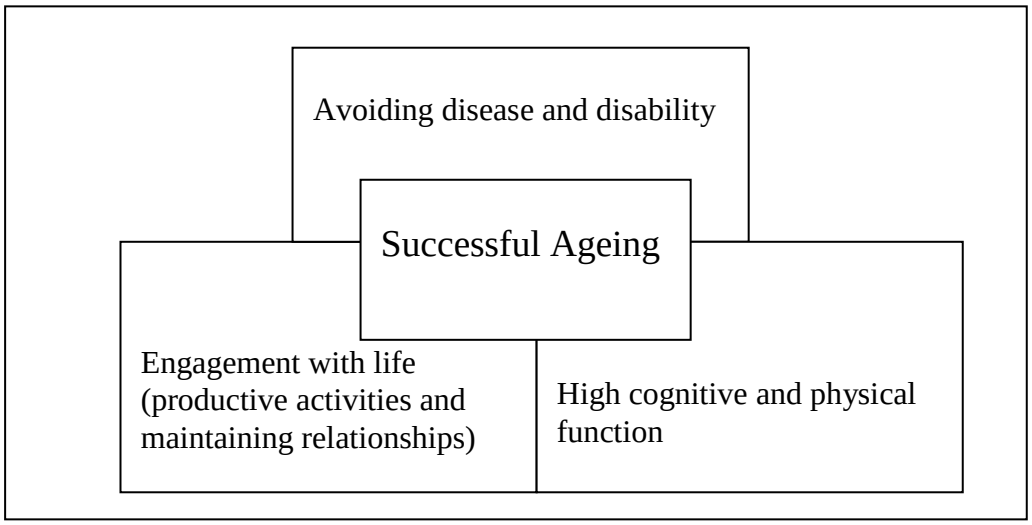
Successful Ageing

While the concept of well adjusted or successful ageing is not new (Baker, 1958; Butler, 1974; Havighurst, 1961; Pressey & Simcoe, 1950), the term 'successful aging' became most popular after Rowe and Kahn (1987) published their model of human ageing, 'usual and successful'. They were among the first researchers to emphasise the term 'successful aging' focussed on the positive aspects of ageing. They noted that previous research had focussed on losses and illnesses associated with ageing and actively promoted the separation of pathological changes from the process of ageing in order to define normal ageing. Rowe and Kahn were more interested in understanding the difference between 'usual' ageing and successful ageing and their approach was tested systematically in the MacArthur studies of successful ageing. They described usual ageing as the normal decline in function influenced by external factors while the concept of successful ageing included minimising functional loss, which goes far beyond usual ageing. They investigated ageing and: metabolism, osteoporosis, physical activity, cognitive function, autonomy, and social support. Their research was influential and focussed on determining what contributed to and created healthy and fulfilling lives for older people while acknowledging that older people can and do have very different medical and psychological states. Rowe and Kahn (1997) defined successful aging as:

> *"Low probability of disease and disease-related disability, high cognitive functional capacity, and active engagement with life ... successful aging is more than absence of disease, important though that is, and more than the maintenance of functional capacities, important as it is. Both are important components of successful aging, but it is their combination with active engagement with life that represents the concept of successful aging most fully"* (p 433).

The relationship of the three components of successful ageing is represented in Figure 3 below.

Figure 3 Rowe and Kahn's Model of Successful Ageing



Rowe and Kahn (1997)

Although Rowe and Kahn essentially defined successful ageing, there is no single, accepted, operationalised definition of successful ageing throughout the field of gerontology, with 29 different definitions identified by Depp and Jeste (2006) in their review of the literature. A question posed by Blazer (2006), whether successful ageing was a state of mind or objective function (or both), is an interesting one as ageing is experienced in many and varied ways. As noted by Depp and Jeste (2006) and Bowling (2006), there is a discontinuity between the formal definitions of successful ageing, older adults' understanding of successful ageing, and other theories of ageing. Addressing this discontinuity is likely to advance the usefulness of the theory of successful ageing.

Rowe and Kahn (1987) acknowledged that successful ageing was a process and not an end it itself, and comprised many physiological and psychosocial factors including living a healthy life, remaining disease free, setting goals and working to achieve them, engaging in productive activities, and maintaining important relationships. With successful ageing considered on-going process, the importance of older people being able to learn new information and become 'successful agers' also needs consideration as part of cognitive health (Lupien & Wan, 2004). Feeling in control of one's life influenced successful ageing and was an important element for well-being, self-confidence, self-efficacy, flexibility and inner strength consistent with other theorists (Baltes & Baltes, 1986; Bandura, 1981; Brandtstadter & Galtes-Gotz, 1990; Rowe & Kahn, 1987; Tate, Lah, & Cuddy, 2003). Within a health promotion framework, Rowe and Kahn (1997) called for researchers to link psychosocial and physiological factors and disease prevention programs, identifying that

lifestyle factors were related to successful ageing. Although originally health was placed at the centre of the theory of successful ageing, Rowe and Kahn acknowledged that there was much more to their theory. Reviewing Rowe and Kahn's theory, it appears that successful ageing was considered a state of being as well as an on-going process of adaptation.

Subsequently, throughout the 1990s, the term 'successful ageing' was adopted by other researchers (Abraham & Hansson, 1995; Baltes & Baltes, 1990; Garfein & Herzog, 1995; Ryff, 1989) and the concept was embraced and further developed. Currently, related concepts around 'successful ageing' such as 'healthy ageing', 'positive ageing', 'active ageing', 'productive ageing', 'optimal ageing', 'a good old age' and 'ageing well' continue to be used interchangeably with 'successful ageing'. These terms reflect the broadening of the concept of successful ageing from primarily a biomedical one to one that reflects the social and psychological world within which people live. The terms are now briefly described.

Healthy Ageing

Concepts of healthy ageing have been evident since the early 1970s. Countries such as Canada and Australia have emphasised the importance of a health promotion approach to maintaining good health into old age including independence, quality of care, attitudes, lifestyle, and injury prevention (Department of Health and Aged Care Office for Older Australians, 2000; Lalonde, 1981). The focus is on maintaining health in old age through increased physical activity, improved eating, and effective management of chronic disease and disabilities. Maintaining and improving physical, emotional and mental well being was also included in the definition of healthy ageing (Bishop, 1999). Bryant and colleagues (2001) argued that individual perceptions are important in understanding healthy ageing, and defined healthy ageing as *"the level of health and adaptation to the ageing process acceptable to the individual"* (p. 928). Heikkinen (1999) associated longevity, absence of chronic illness and general adaptedness as markers of healthy ageing, consistent with Bishop (1999), and Baltes and Baltes (1990) model of successful ageing discussed later in this chapter. Incorporating many of the earlier definitions of healthy ageing, along with her own case studies and review of the literature, Hansen-Kyle (2005) suggested healthy ageing is, *"the process of slowing down, physically and cognitively, while resiliently adapting and compensating in order to optimally function and participate in all areas of one's life (physical, cognitive, social and spiritual)"* (p. 52). However, after conducting a review of studies which defined and measured healthy ageing as an outcome, Peel, Bartlett and

McClure (2004) argued for the need to establish a standard for defining and quantifying the concept of healthy ageing.

Positive Ageing

Positive ageing focuses on the positive views of ageing by recognising a person's potential and skills, rather than what they cannot do because of age (Minichiello & Coulson, 2005). Less literature on the concept of 'positive ageing' is found, although there is a focus from some researchers and older people on having a positive life attitude, including forgiveness, gratitude and joy (Chong, Ng, Woo, & Kwan, 2006; Vaillant, 2002). Chong and colleagues found that the older people they interviewed felt healthy lifestyles, positive thinking, good personal relationships and good financial resources, would promote positive ageing.

Active Ageing

Active ageing has been defined by the World Health Organization in their *Active Ageing Policy Framework* as *"the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age"* (2002, p. 12). The five determinants of active ageing are: personal, behavioural, economic and social, the physical environment and accessibility to health and social services. These determinants are mediated by culture and gender. This framework acknowledges the broader determinants of health which lie outside the health field, such as transport, housing, and neighbourhoods. Hereditary factors, socio-economic circumstances, gender, behavioural factors, and attitudes have also been identified by Heikkinen as important to active ageing (1999). Walker (2002) argued that active ageing focused on determinants that run throughout the life course, and combined productive ageing with promoting well-being. He included principles such as including meaningful pursuits, including all older people regardless of health status, an emphasis on prevention, respect for cultural diversity, using empowering strategies, embodying rights, and intergenerational activities as integral to active ageing.

Productive Ageing

The National Seniors Productive Ageing Centre (NSPAC) defines productive ageing as: *"…the promotion and organisation of a lifestyle which enables seniors to participate actively in the economic and social advancement of the nation in a manner that will ensure they are contributors rather than dependants, while having the added benefit of enhancing their own*

health and wellbeing" (Donatti, Moorfoot, & Deans, 2005) (pp. 2-3). Donatti and colleagues argue that this definition raises the status of seniors above that of consumers only, and that it is not based on a purely economic focus. Other definitions of productive ageing include concepts such as the capacity to participate in the paid workforce, engaging in volunteer activities, assisting family and maintaining independence, education, fitness and exercise, advocacy, consumerism, any activities that produces goods and services (Butler & Gleason, 1985; Butler & Schechter, 1995; Herzog, Kahn, Morgan, Jackson, & Antonucci, 1989; Kerschner & Pegues, 1998). Productive ageing is a concept that as recently as 2013, was being discussed as the capacity to live healthy and independent lives, positive approaches to ageing, and contributing to economic prosperity (Australian Department of Health and Ageing, 2013). Critics of this concept question whether continued productivity is useful, and argue that the emphasis on productivity can marginalise disadvantaged and disabled older people, and suggest that productivity is a cultural loaded concept (Holstein, 1992; Minkler & Fadem, 2002).

Optimal Ageing

Optimal ageing, while not well defined, often refers to physiological aging, slowing down the ageing process, increasing longevity, and optimising resources as a person ages (Dalgaardy & Strulik, 2010; Mcreynolds & Rossen, 2004; Powell, 2011). The Institute of Optimal Aging in the United States does not define optimal ageing suggesting that it is understood (The Institute for Optimal Aging, 2012). Schulz and Heckhausen (1996) noted that the term 'optimal aging' is a variant on successful aging and that it refers to an organism ageing under optimum conditions.

A Good Old Age

The term ‘a good old age’ is often used in a descriptive sense with little research defining the concept. Fry and colleagues (1997) examined ‘a good old age’ within the context it was experienced. They investigated ageing across Africa, North America, Asia and Europe (in total seven sites), and looked at the specific cross-cultural meanings of a good old age. Four issues were identified that contributed to a good old age: physical health and functioning, material security, family, and sociality. The differences in importance of the four issues were found to be linked to the social, political and economic context of each community.

Ageing Well

Ageing well has not been sufficiently defined. The Australian Government's National Research Priorities established 'promoting and maintaining good health' as one of its priorities. Within this priority, 'ageing well, ageing productively' was identified as one of the goals (Australian Government, 2002). Ageing well, ageing productively is further defined as, "*developing new and better social and medical strategies to reduce mental and physical degeneration based on greater knowledge and understanding of the causes of disease and degeneration of mind and body"*. (Australian Institute of Health and Welfare and Office for an Ageing Australia, 2003, p.6). While there are few definitions of ageing well that could be found, Vaillant (2002) describes ageing well as *"how older people end up fulfilled"* (p. 4), and uses the term interchangeably with successful ageing and positive ageing. He lists a number of factors that contribute to healthy and happy longevity (living well) which include mental and physical health, gratitude, adaptability, and a good marriage. Vaillant also argues that ageing well is due to how an older person feels about him / herself, rather than what scientific evidence there is about an older person's physical health / sickness. While ageing well is a term that is used frequently, it appears to be similar to 'living well', leading to longevity.

While there are a number of related concepts which broaden the definition of successful ageing, many of them contain the same core concepts of physical health or functioning, mental health, and socialisation that are described in successful ageing. Whilst emphases in the various concepts about ageing can be found on different elements, the core components of productive activities, physical / mental health and avoiding disease and disability remain as fundamental to ageing successfully.

Psycho-social perspectives of Successful Ageing

Successful ageing has been incorporated into other theories of ageing from various disciplines. Baltes and Baltes (1987, 1997) developed a model of successful ageing from a psychological point of view incorporating the processes of selection, optimization and compensation. Their theory of Selective Optimization with Compensation (SOC) proposes that the effective adaptation to ageing is maintained by engaging strategies that balance losses and gains throughout life. 'Selection' refers to the restrictions in domains or goals that occur as people age. Selection can include reductions and adoption of new or transformed domains

/ goals. 'Optimization' refers to enriching and augmenting behaviours that maximise chosen life courses. 'Compensation' refers to substitution of compensatory actions or thoughts when faced with reduction in functioning. SOC takes a positive view of ageing and recognises the potential in adapting to change. Baltes and Baltes (1990) provide, as an example of SOC, the pianist Rubenstein's adaptation to ageing. He played a smaller number of pieces (selection), practiced them more often (optimization), and slowed down his speed of playing prior to fast movements in order to produce the contrast which suggested speed during the fast movements (compensation) (p.26). However, Baltes and Baltes also state that *"it is likely that no single set of conditions and no single trajectory of aging would qualify as* ***the*** *form of successful or optimum aging"* (p.21). As argued by Lupien and Wan (2004), SOC is "*a model of resilience and coping, and it has the advantage of not using an elitist definition of successful ageing*" (p. 1421).

Ryff (1982) also examined successful ageing from a psychological perspective. She conceptualised ageing as personality development, researching the 'inwardness' of old age. She included developmental and non-developmental personality dimensions in her research, and went on to construct personality scales that measured dimensions drawn from Erikson's theory of psychosocial development and from Neugarten's (1973) work. The dimensions Ryff developed are 'generativity' (having a sense of guidance / responsibility for younger generations), 'integrity' (successful integration of past triumphs and disappointments and meaningful and appropriate), 'complexity' (active engagement in a multifaceted environment with many demands), and 'interiority' (turning inward with less concern for external factors) (Maciel, Heckhausen, & Baltes, 1994). Ryff's findings revealed the emphasis on integrity in old age, and partial support for interiority in old age. Ryff argued that a personality scale not based on life span theory, would not be sensitive to issues related to ageing.

Successful ageing was also incorporated into Continuity Theory (Atchley, 1989) which proposed that as people age they are inclined to maintain, as much as they can, the same habits, personalities, and styles of life that they have developed in earlier years. Individuals take adaptive strategies in later life to enable them to gain a sense of continuity between the past and the present, and the theory implies that this sense of continuity helps to contribute to well-being in later life. Rudinger and Thomae (1990) contributed to the development of the theory of successful ageing by demonstrating that perceptions and feelings about self could

hold more importance in explaining and predicting well-being than actual physiological conditions. The concept of control or mastery over self is explored in Chapter Three.

Of particular relevance to the current thesis, examining the psychological conceptualisations of successful ageing helps provide meaning around how loneliness can be experienced while ageing successfully. 'Engagement with life' is one of the components of successful ageing (Rowe & Kahn, 1987). It is helpful to explore perceptions about engagement and the adaptive strategies undertaken by seniors, to gain a better understanding of seniors who might feel lonely while also engaging with life. As noted by Blazer (2006), it is not clear whether successful ageing is a state of mind or objective function (or both). Vaillant argues that the perception of successful ageing is paramount (2002) and that maintaining strong social ties is important to ageing well. Lupien and Wan (2004) also argue that focus needs to be on the psychological factors (i.e., positive self-concepts) that influence and shape ageing. Viewing successful ageing from the psychological approach, Bowling and Iliffe (2011) found that it was not only about the maintenance of health, but about maximising psychological resources of self-efficacy and resilience. Psychological conceptualisations of successful ageing prove useful in understanding the dynamic process of ageing, and how mastery over self, effective coping, and adaptive strategies contribute to successful ageing.

Currently, the emphasis in successful ageing is on living a healthy life. Researchers, however, propose that more individuals are 'successful agers' than originally envisaged by Rowe and Kahn (i.e., people with chronic disease still self-rate as ageing successfully) (Strawbridge, Wallhagen, & Cohen, 2002). Bowling and Iliffe (2006), after testing five models of successful ageing, argue for a *"generalist approach to health maintenance in later life rather than a narrower focus, be it medical, social or psychological"* (p. 613) because this generalist approach is more consistent with lay perceptions of successful ageing. More older people rate themselves as successful agers when a generalist approach is used (Bowling, 2006).

Current Theories of Successful Ageing

More recent researchers, such as Settersten and Traunten (2009), examined positive images of ageing and the strong emphasis on the potentials of ageing. They suggested most current images have not promoted positive ageing, but have fuelled a growing anti-ageing industry

and a cultural imperative to defy ageing. They note that ageing is becoming more complex, whilst age itself (the number), is no longer a marker of 'old age'. Settersten and Traunten outlined seven skills and capacities that they suggested would equip older people to age well, and refer to them as *"additional forms of capital in negotiating old age"* (p. 466). They suggest that the skills contribute to individual resources, and as societies become more uncertain, these skills help people navigate their way into old age successfully. They base these skills on the prospect of failing health, declining cognitive abilities, a fear of losing control over one's life, death of significant others, and shrinking social networks (among others). The seven skills and capacities reassemble and build upon Rowe and Kahn's successful ageing concepts. They are:

Interdependence – wide and strong networks of relationships from the most superficial to the most intimate;
Fluid self-definitions – being open to flexible understanding of who one is and how life is experienced;
The ability to plan for and set realistic goals – flexible and open to experiences;
The capacity for intimacy and close social relationships – form and maintain interdependence;
The capacity for intergroup relationships – understanding and relating to a group that is perceived as one's own;
Reflective capacity and 'developmental regulation' – self-awareness, self-control, considering others;
Self-efficacy – accept the positive and negative and demonstrate resilience.

While the skills and capacities Settersten and Traunten outline may contribute to ageing well, they are individual in nature, focus on outcomes, emphasise high levels of cognition, and do not consider cultural influences. Criticisms levelled at the theory of successful ageing equally apply to Settersten and Traunten's model.

Building on successful ageing concepts, Zarit (2009) suggested that a combination of the following eight factors of healthy ageing could lead to a happy and productive old age:

Developing good health habits;
Developing skills for managing chronic illness;
Developing good social skills;
Developing skills for managing emotions;

Developing good cognitive skills;
Developing interests;
Developing good economic skills (competency in managing finances);
Developing a sense of self-efficacy for the ability to change one's life.

The basic tenets of Zarit's concept of healthy ageing focus on individual healthy life choices. Physical activity, healthy living, social engagement, and cognitive flexibility are the positive changes that need to be considered and adopted to age successfully. Again, Zarit's model places the responsibility for healthy ageing squarely on the shoulders of the individual, yet many of the factors may be beyond the control of socio-economically disadvantaged seniors.

Nonetheless, the skills, capacities and factors of healthy ageing identified by Settersten and Traunten (2009), and Zarit (2009), could contribute to a happy and productive old age for some individuals. Both theories are framed at the level of the individual and assume individuals are capable of making their own choices. Zarit however, does not dismiss other theories of ageing. He acknowledges that a comprehensive understanding of the ageing process is only possible through consideration of biological, individual and social theoretical perspectives.

Successful ageing continues to exert a strong influence in the field of gerontology. Yet exploring successful ageing within the cultural, social and physical context continues to pose a challenge. From a physical (or biomedical) perspective, successful ageing is well articulated by Rowe and Kahn as 'avoiding disease and disability' along with maintaining 'high cognitive and physical function'. Physical capacity and health have been identified in many cultures as part of ageing successfully with poor physical health contributing to perceptions of negative old age (Chappell, 2003; Collings, 2001; Fry, et al., 1997). However, as Fry and colleagues argue, the social context of being physically capable varies considerably depending on (among many other factors) how labour intensive or how technologically advanced a society might be. For example, a senior required to harvest crops would have a different perspective on 'physical capacity' than a senior participating in a gym session looking to set a personal best record using treadmills and weights. Additionally, financial security was not addressed by Rowe and Kahn, yet a number of studies into successful ageing highlight this important aspect of life for seniors across different cultures (Chappell, 2003; Collings, 2001; Fry, et al., 1997). In this context, Chappell (2003) found that the primary source of financial assistance for the majority of older people living in

Shanghai is from family, particularly children. With no national pension and the need to rely on family for financial support, it is understandable that for older Shanghai residents, financial security would contribute to successful ageing. Fry and colleagues (1997) found that in Hong Kong, material reasons were mentioned second most often as a reason to experience a problematic old age.

Rowe and Kahn seem to have limited the social context to 'engagement with life (productive activities and maintaining relationships)'. Social context is much greater than 'engagement with life'. Fry and colleagues (1997) conducted cross cultural research (Project AGE) in seven sites that sought to investigate how different communities shaped the experience of aging and pathways to well-being for their older members. She found that four issues were mentioned consistently by interview subjects, but emphasised differently: physical health and functioning; material security; family; and sociality. Fry and colleagues found that family played an important role in maintaining relationships and contributing to successful (or unsuccessful) ageing for many seniors. For those older people living in Hong Kong, Fry found 'family' meant harmony with children looking after their parents. Hong Kong Chinese mentioned family as central to successful ageing. Fry identified 'sociality' as the fourth element necessary for successful ageing after the core elements of physical health, material security and family. For Hong Kong Chinese, the concept of 'sociality' incorporated qualities such as tolerance, open mindedness, not imposing one's view on others and not 'nagging'. Irish and American older people identified qualities such as loneliness, bitterness, inactivity, being self-centred, and complaining as markers of unsuccessful ageing.

In response to more narrow theories of ageing, a move toward more holistic, yet less universal, views of ageing can be discerned. Ryff and Singer (2009) argue that it is vital that older people are considered contextually, and that they are not reduced to individual aspects of themselves to provide explanations for ageing well. Many factors work together to assist healthy / optimum / successful ageing, and researchers (Gerstorf, Smith, & Baltes, 2006; Gruenewald, Mroczek, Ryff, & Singer, 2008) emphasise an integrative approach to understand the full and complex picture of successful ageing, which comprises biological, psychological and social processes. The integrative approach these researchers support includes the neighbourhoods and communities in which people live, as well as other social, individual biological and psychological influences. Ryff and Singer acknowledge that healthy ageing can be defined at two levels – biological, and biological including behavioural

capacities. Their broader definition of healthy ageing is *"the maximal delay of illness, disease, disability, and hence mortality"* (p.118). However, while Ryff and Singer argue that an integrative approach is necessary, they still rely heavily on an avoidance of disease focus of successful ageing. From the field of public health, the social determinants of health perspective provides a possible framework to contextualise influences on older people's experience of ageing, and hence advance an integrative approach to successful ageing. This perspective is explored later in the chapter.

Criticisms of Rowe and Kahn's Successful Ageing Theory

Three main critiques of Rowe and Kahn's theory can be discerned from the literature. These are, firstly, its focus on individual responsibility, secondly, its terminology and thirdly, its exclusivity. The first criticism, that the theory is individuated, proposes that a person centred approach is not broad enough to cover the complexities of ageing, as it does not consider the social context or accept that certain aspects of one's life cannot be changed (Angus & Reeve, 2006; Bowling, 1993; Kaufman, Shim, & Russ, 2004). The second criticism concerns the actual terminology used which implies winners and losers (Strawbridge, et al., 2002; Torres, 1999), that successful ageing is not a process but an outcome (Dillaway & Byrnes, 2009), and that the terminology characterises ageing as undesirable and preventable (Angus & Reeve, 2006; Kaufman, et al., 2004). The third criticism is that successful ageing is only available to highly resourced groups, excludes many older individuals, and ignores cultural influences (Angus & Reeve, 2006; Kahana, Kahana, & Kercher, 2003; Kaufman, et al., 2004; Lewis, 2010; Martinson & Minkler, 2006; Torres, 1999). The common theme running throughout the criticisms of successful ageing is that it does not provide a multidimensional perspective encompassing all (or even many) aspects of the ageing individual - physical / biomedical, emotional, psychological, social, economic, political, cultural and spiritual.

From a cultural perspective, Rowe and Kahn's model lacks recognition of the influences of culture, society, or values on ageing individuals and this provides little insight into how various cultures conceptualise successful ageing (Torres, 1999). Successful ageing is presented as a Western value, which emphasises mastery over the ageing self. Older people were not consulted by Rowe and Kahn about what successful ageing meant to them, leading to rather obvious gaps in understanding. The definition of successful ageing does not consider the value system of the enquirer - or, the social construction of the ageing

individual's reality (Bowling, 1993). Additionally, many more older people can categorise themselves as ageing successfully than the Rowe and Kahn model would propose (Bowling & Dieppe, 2005). Without acknowledging the experience of ageing as unique within individuals and cultures, Rowe and Kahn reduced the ageing experience to their limited model. There is no acknowledgement that seniors perceive there are a number of ways to age successfully (Torres, 2006), again supporting the criticism that successful ageing is value laden and 'exclusive'.

Kahn (2002) rejected many of the criticisms of successful ageing and emphasised that successful ageing was ageing well, *"that is, maintaining a high quality of life in old age"* (p 726). Kahn dismissed the winner or loser argument as a construct grounded in the American cultural context of succeeding or failing in life, which excluded living a life on the continuum between successful and pathological ageing. He accepted that there were structural impediments to successful ageing and that people deteriorated biologically as they aged. Many of the criticisms of successful ageing appear to be based on its uni-dimensionality and inflexibility. Kahn, however, has rejected many of these criticisms and it is important to acknowledge that although his original work may appear to be written from a restrictive, biomedical orientation, his underlying emphasis appears to support the breadth of successful ageing (Kahn, 2002). The criticisms of successful ageing have further developed the theory by broadening the factors associated with ageing well, and contemporary theories are discussed below.

Regardless of criticisms, the core elements of physical and cognitive health, and engagement with life appear in most (if not all) of the contemporary theories that have built on Rowe and Kahn's theory of successful ageing. Cultural differences in conceptualisations of successful ageing have also emerged and this thesis seeks to make a contribution to such conceptualisations.

Lay Perceptions of Ageing

Supporting the concept of integrating factors that influence ageing across all aspects of living and working, there is increased emphasis on defining successful ageing in a broader manner with lay perceptions of ageing now also being included in the concept (Prieto-Flores, Fernandez-Mayoralas, Rosenberg, & Rojo-Perez, 2010; Terrill & Gullifer, 2010; Weir,

Meisner, & Baker, 2010). Collings (2001) argued that understanding the lay perceptions of successful ageing was vital to understanding cultural differences. His interviews with Inuit seniors found that conceptualisations of successful ageing included: health steadily declines as one gets older; slowing down speeds up the ageing process; activity keeps you young; a positive attitude is necessary; take it easy and don't worry; poor mental health is associated with unsuccessful ageing, and intergenerational communication is vital. Collings concluded that attitude was the main defining characteristic of successful ageing. When Bowling (2006) surveyed British individuals over the age of 50, she found over three quarters of people surveyed rated themselves as ageing successfully, regardless of biomedical issues. Lay definitions of successful ageing are multidimensional and include psycho-social perspectives. The presence of illness was not equated with unsuccessful ageing. Bowling suggested broadening the theoretical perspectives to include lay views to better understand the cultural context of successful ageing. When reviewing differences between lay and academic, and western and non-western cultural perspectives of healthy ageing, Hung, Kempen and DeVries (2010) found that lay definitions included more domains than academic views. Non-western lay perspectives in particular identified family, adaptation, and financial security as domains of healthy ageing, while academic definitions did not include these domains. Chapter Six of this thesis examines the interviews conducted with Anglo-Australian and Chinese seniors. Their understandings of concepts such as health, loneliness and social engagement further support the importance of including lay perceptions to better understand the cultural context of successful ageing.

Self-appraisal or self-perception of successful ageing was not specifically identified by Rowe and Kahn when they developed their theory. However, in its broadest sense, all capacities and qualities that contribute to an older person feeling healthy, well and connected could be incorporated into the concept of successful ageing. The theory of successful ageing lends itself to further development, including by incorporating the lay perspective of ageing successfully.

Successful Ageing across Cultures

Much of the work about successful ageing and culture is recent. Rowe and Kahn did not consider culture in their theory and recent work adds a cross cultural perspective to their theory of successful ageing. There is under-representation of non-western lay perceptions in

research about successful ageing (Cosco, Prina, Perales, Stephan, & Brayne, 2013). Considering culture when examining successful ageing adds another dimension which is further explored below, (see the section 'Social Determinants of Health Perspective' in this chapter).

With little research undertaken amongst Chinese seniors living in Australia, the review of successful ageing with this group is limited. The review therefore includes research into successful ageing undertaken in Asian countries of Chinese ethnicity (i.e., China, Taiwan, Hong Kong), and one Korean study on successful ageing.

While there has been research examining depression in older Chinese-Australians (Hsiao, Klimidis, & Minas, 2006; Klimidis, Hsiao, & Minas, 2007; Wong, Lam, & Poon, 2010) and Chinese Australians' mainstream health usage (Martin, 1998), there is little research about older Chinese immigrants' perceptions of successful ageing. Therefore, this review of successful ageing and older Chinese immigrants is limited. Examining mainstream health usage by Chinese immigrants (between 15-71 years of age), Martin (1998) found that the continued practice of their Chinese culture in Australia was considered important. Belonging to Chinese social groups, staying busy, and dutiful children were also identified as important. In particular, Martin found the Chinese and Hong Kong participants mentioned loneliness and boredom as problems. One of the few studies about successful ageing conducted with Chinese immigrants ageing in Australia was undertaken by Tan, Ward and Ziaian (2010). They explored the life experiences and views on successful ageing of older Chinese immigrants and Anglo-Australians and found that both groups associated successful ageing with health and personal responsibility. They argued that financial security and active lifestyles were important aspects of successful ageing for Chinese-Australians, while acceptance and growing old gracefully were important aspects of ageing for Anglo-Australians living in Adelaide. Tan and colleagues also recommended that culturally relevant and specific questions be included in research with Chinese older people. Browning and colleagues (2011) found that older Chinese Australians identified physical activity, healthy eating and happy and successful children as important to a 'happy' old age. While the research on Chinese-Australians is sparse, it contributes to the growing body of literature that proposes there are cultural aspects to successful ageing. In particular, the research supports, the inclusion of personal responsibility, financial security, physical activity, and happy and successful children as important to successful ageing for older Chinese persons. These

additional concepts expand the cultural lay perceptions of the original Rowe and Kahn theory of successful ageing. The concepts and theory development around successful ageing will continue to develop and evolve as new results are published.

Australian researchers have stressed the importance of taking into consideration the wide variation in the experience of ageing for all Australians when discussing successful ageing (Andrews, Clark, & Luszcz, 2002; Jorm et al., 1998). Jorm and colleagues (1998) found that successful ageing was common in Australian seniors in their early 70s and became less common after the age of 79. Successful ageing was associated with verbal intelligence and education. The implications of this for better educated populations are that they will age more successfully even though there may still be a higher prevalence of age-related disease. Andrews and colleagues (2002) found that physical, psychological and social functioning was strongly interrelated with successful ageing. Higher functioning seniors demonstrated good memory, higher levels of resilience, and better verbal and abstract reasoning ability. Andrews and colleagues (2002) reasoned that over time, psychological resources such as perceived control, sense of self and self-esteem were fundamental to successful ageing. Queensland seniors and service providers interviewed by Everingham, Lui, Bartlett, Warbuton and Cuthill (2010) defined ageing well as health, independence (security), and remaining socially connected. They felt the terms 'successful ageing' and 'productive ageing' implied seniors had shortcomings.

In China, successful ageing of the oldest old is associated with having had more years of education, and being married (Du, 2008). More years of education was a relevant factor in Du's research even though more than 66% of the Chinese seniors over 80 years of age never attended school. Du noted that although there were similarities and differences in findings between studies of American, Australian and Chinese seniors, that across these three groups more years of education seemed to be a universal factor in successful ageing. Jang, Choi and Kim (2009) found similar results in their study of older Korean persons where higher education (and higher income) was significantly associated with successful ageing. Research with older Taiwanese individuals (Wang & Lin, 2012) examined successful ageing across four dimensions ('economic security' was added to Rowe and Kahn's model). Wang and Lin found that volunteering was low, financial support was of concern, and that there were no consistent patterns across the four dimensions. Wang and Lin also found that educational levels and family income were the significant factors affecting the level of successful ageing.

A four factor model to define successful ageing was developed and tested by Lee, Lan and Yen with older Taiwanese individuals (2011). They included 'leisure activity' as a significant factor related to successful aging. The influences of education and economic security fit within a Social Determinants of Health Perspective, which is discussed in more detail below.

A broader understanding of successful ageing was identified as a possible step towards understanding the variations in seniors who claim to be ageing successfully. While any definition of successful ageing will be socially constructed, as noted by Depp and Jeste (2006), there is a discontinuity between the definitions of successful ageing, older adults' understanding of successful ageing, and other theories of ageing. This can be explained by the tendency of researchers to not examine successful ageing as socially constructed. Experientially, seniors come to understand what their age means, develop their aged identity, and live with and in spite of their ageing (Conrad & Barker, 2010). Understanding how ageing has been shaped by social interactions, shared cultural traditions, shifting frameworks of knowledge and relationship of power will further define the concept of successful ageing across cultures. Until cultural meanings are associated with how ageing is experienced, the subjective experience of ageing and how seniors manage their ageing is difficult to understand. Hung, Kempen and DeVries (2010) Dahlgren and Whitehead (1991) present a model that complements successful ageing by clearly presenting how ageing 'lives' within social and cultural meanings. As discussed below, embedding successful ageing within the social determinants of health model assists in understanding the influences of culture and environment on ageing.

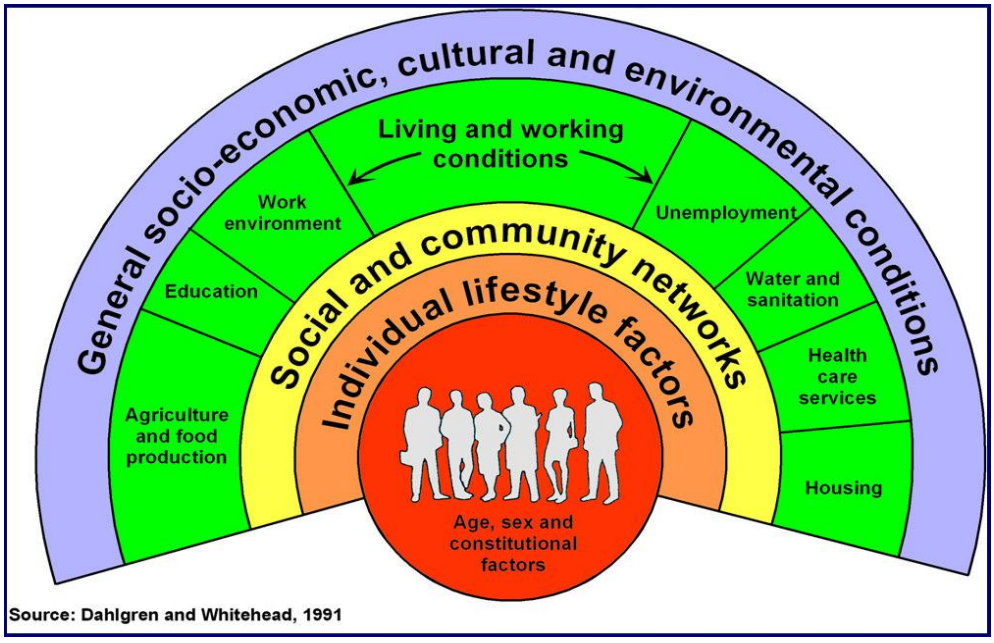
Rowe and Kahn developed successful ageing as a response to the focus on loss and illness associated with ageing. They exerted a strong influence on researchers who examined ageing as an active process which included many opportunities for development and growth. Their work assisted in fundamentally shifting the research emphasis from what an older person cannot do, to what an older person can do. As a result, physical, emotional, mental and social health are no longer considered unattainable for seniors.

Social Determinants of Health Perspective

As described in Chapter One, the World Health Organisation defined the social determinants of health as *"the conditions in which people are born, grow up, live, work and age...these conditions influence a person's opportunity to be healthy, his / her risk of illness and life expectancy* " (2013). At the World Conference on Social Determinants of Health in Rio de Janeiro (2011), the WHO published the Rio Political Declaration on Social Determinants of Health which, among other things, underscored the principles of the 1978 Declaration of Alma Alta and recognised that "*the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition*". WHO has acknowledged that attainment of these goals is complex, requires action from all stakeholders, and is not limited to the health sector. Clearly, health lies at the centre of both the Social Determinants of Health and Successful Ageing.

Dahlgren and Whitehead (1991) developed an integrative view (Figure 4) of the factors that influence all aspects of living and working. They examined how social, environmental, cultural and lifestyle forces act on the health of individuals. Their model shows how all factors fall within the general socio-economic, cultural and environmental conditions of society that also include social and community networks as well as individual lifestyle factors.

Figure 4 Dahlgren and Whitehead's Model of the Social Determinants of Health



The general social determinants of health, also referred to as 'macro level' determinants (Turrell, Oldenburg, McGuffog, & Dent, 1999) have been shown to influence health. The relationship of these determinants include education, employment, income, living and working conditions and have been extensively discussed (Cummins, et al., 2007; House, Landis, & Umberson, 1988; Macintyre & Ellaway, 2003; Macintyre, et al., 2002; Vaillant & Mukamal, 2001; Huisman, et al., 2003; Kawachi, et al., 2002; Marmot, 2001; Olsen & Dahl, 2007; Pickett & Pearl, 2001; Sargent-Cox, Anstey, & Luszcz, 2008; Wen, et al., 2003). Culture has also been shown to influence definitions and perceptions of health (Chappell, 2003; Fabrega, 1990; Ingersoll-Dayton, Saengtienchai, Kespichayawattana, & Aungsuroch, 2001; Menec, Shooshtari, & Lambert, 2007; Triandis, 1995; Yang et al., 2007). Research now supports the proposition that intermediate factors such as health behaviours and psychosocial factors are similarly related (Barefoot, Grønbæk, Jensen, Schnohr, & Prescott, 2005; Berkman & Syme, 1979; Idler, Hudson, & Leventhal, 1999; Ostir, Simonsick, Kasper, & Guralnik, 2002). Micro level factors such as genetic makeup and gender also clearly affect health. Vaillant and Mukamal (2001) found that high levels of education, and having an extended family network, predicted successful aging in American seniors.

Creating healthy and sustainable communities is the overarching aim of this model, yet much research focuses on the intermediate and micro level factors seen to determine health. The Victorian government, for example, emphasises being healthy, reducing lifestyle diseases, and providing information to people to encourage good health practices (Department of Health, 2011). Much less emphasis is placed on working across sectors to address broader social determinants of health. In general, there is now a strong focus on physical activity (Baker, Meisner, Logan, Kungl, & Weir, 2009; Meisner, Dogra, Logan, Baker, & Weir, 2010). Physical activity has been linked to disease prevention (Warburton, Nicol, & Bredin, 2006) and social integration (Dogra, Meisner, & Baker, 2008).

Researchers focussing on physical activity propose that physical activity is one of the strongest predictors of functional health and successful ageing. Implicit in their model is the concept that without the capacity for physical activity, successful ageing is not possible, or will be greatly reduced. Yet, the exploration of the extent to which neighbourhoods as promoting and supporting physical activity, is yet to be completed. The conditions within which a person lives, influences her / his capacity for successful ageing. As such,

neighbourhoods that support and promote physical activity (and other healthy lifestyle behaviours) are also more prone to also support successful ageing.

Successful Ageing theory emphasises high cognitive and physical function, avoidance of disease and disability, and productive activities and maintaining relationships (engagement with life) and these appear to sit squarely within individual lifestyle factors, and social and community networks. Yet these individual and social factors are influenced by much broader socio-economic, cultural and environmental conditions. Higher education, healthy lifestyle practices, financial security, and health promoting neighbourhoods influence how well an individual ages. Cultural practices can exert strong influences over how relationships develop and what values are placed on them. This thesis examines seniors living in a relatively advantaged area with abundant green and open space, good health outcomes, higher than average education and access to universal health care services. It is proposed that the seniors will identify many (if not all) of the social determinants as important to good health and ageing well.

There is a question about where loneliness might sit within Dahlgren and Whitehead's model. If the proposition that loneliness is a genetic tendency is accepted, then it would sit within individual lifestyle factors. If loneliness is perceived as a component of relationships, then it would sit within social and community networks. However, with culture playing an important part of how loneliness is conceptualised, the perceptions of loneliness of the Chinese and Anglo-Australian seniors interviewed as part of this research, will help determine where it lies within the spectrum of social determinants of health. These lay perceptions will arguably build on and add to the work of Bowling (2008; 2005), Collings (2001), Fry and colleagues (1997), and Prieto-Flores and colleagues (2010), particularly from a Chinese-Australian perspective.

Successful ageing, despite its limited original view, has been selected as the underpinning theory for this thesis because it focuses on ageing from a strengths-based capacity. Criticisms of successful ageing theory have served to refine and develop the original theory of successful ageing. Successful ageing as a concept has evolved over the past 60 years from originally identifying that decline is not an inevitable part of ageing, through to acknowledging the intricate interplay of ageing individuals within cultures, how values affect the experience of ageing, and how individuals perceive the 'success' of their own ageing.

Successful ageing has become the fundamental 'strengths-based' theory upon which much work has been built.

The three components of successful ageing - avoiding disease and disability, engagement with life, and high cognitive and physical function - are proposed as components that Chinese and Anglo-Australian seniors interviewed for this research will identify as important to ageing well. It is reasonable to assume that both Chinese and Anglo-Australian seniors will identify the three components of successful ageing as positive and important to living a happy and healthy life when asked what good health means to them. It is also proposed that the seniors will identify loneliness as an aspect of either disease or poor engagement with life. Loneliness is explored in depth in Chapter Three.

The seniors who participated in this research live in a relatively advantaged local government area predominantly characterised by higher than average home ownership, relatively good health outcomes and relatively high educational achievement. Their general socio-economic, cultural and environmental conditions are relatively high. Investigating the Western value base of successful ageing with a group of well resourced seniors from Chinese and Anglo-Australian backgrounds, will add to the body of knowledge about cultural understandings of ageing, and how loneliness is perceived within successful ageing. Investigating Rowe and Kahn's definition of successful ageing in this setting will identify whether lay perceptions differ substantially between Chinese and Anglo-Australian seniors living in Manningham.

Conclusion

This Chapter has reviewed Rowe and Kahn's theory of Successful Ageing, explored a range of psychological conceptualisations of successful ageing, provided an overview of the criticisms of Rowe and Kahn's theory of Successful Ageing, and reviewed recent research examining contemporary perspectives on the theory of Successful Ageing. Much of the research on successful ageing argues that the responsibility for ageing well rests with the individual. Contemporary perspectives also emphasise the influence of social environments on successful ageing. A universally agreed definition of successful ageing has not been found, and researchers now suggest broadening Rowe and Kahn's descriptions of successful ageing (cognitive / physical capacity, disease / disability free, engagement with life) to include lay conceptualisations. This review has identified that a broader understanding of

successful ageing will assist in understanding the variations among seniors who claim to be ageing successfully. The inclusion of the concepts of loneliness and stigma that follow in Chapter Three, highlights the need for a broader understanding of successful ageing to gain insight into how successful ageing is perceived by individuals.

Chapter Three examines the literature around the concepts of loneliness, self-reported health, and culture - particularly collectivism and individualism in reference to Eastern (Chinese) and Western (Anglo) culture. Also included is literature incorporating social determinants of health - neighbourhood, socio-economic status, and sense of mastery as salient to the concepts of loneliness and health. Stigma is discussed in relation to loneliness as a socially undesirable trait.

Chapter Three – Loneliness within a Social Determinants Approach – A Literature Review

This chapter reviews literature around the concepts of loneliness, health and culture within the theoretical framework of successful ageing. Taking a social determinants of health perspective, factors such as stigma, sense of mastery, socio-economic status and neighbourhood (place) are also introduced as salient to the concepts of loneliness and health. Western and Eastern concepts of health are reviewed as well as collectivist and individualist cultural differences. This chapter begins with a review of the concept of loneliness, exploring definitions, examining the prevalence of loneliness, and reviewing loneliness measures. Literature about health is then reviewed. Socio-economic status and neighbourhood in relation to health are explored as well as how they impact on loneliness. The chapter concludes with a reflection on findings from the literature review, and discusses gaps in knowledge that lead to the research questions for this study.

Method

This literature search commenced with a review of terms such as 'older adults', ageing', 'successful ageing', 'active ageing', 'health', 'self-reported health', 'loneliness', 'social support', 'social networks', 'social isolation', 'social determinants of health', 'neighbourhood', 'place', 'ethnic Chinese', 'culture', 'stigma', 'sense of mastery', and 'collectivism' and 'individualism'. The following were searched to conduct the review: AgeLine, APAIS health, Australian Policy online, Blackwell reference online, CINAHL plus, Cochrane database of systematic reviews, Health and Society, Health Collection, Informit collections, NICE, Ovid Medline, ProQuest, PSYCHINFO, PubMed, Sage reference on-line, Social Care, SCI, Social services abstracts, Taylor & Francis online, Web of science, and Wiley online library. There was no limitation made for years searched. Key books and policy documents in the area were also searched. Australian and International government websites and the World Health Organisation were searched using these terms in an attempt to explore policy issues around loneliness and seniors. Over time, the search terms expanded into areas including social relationships, psychological well-being of older adults and social interaction. It became clear that loneliness and ageing was an area that cut across many fields

and the literature search continued to branch out across databases and journals that specialised in gerontology, psychology, sociology, nursing, existentialism, and longitudinal studies. Eventually, on a regular basis, searches ended with particular authors or journals, and at this point, the combination of terms and fields throughout the literature seemed to connect well.

The Concept of Loneliness

Loneliness is a complex phenomenon and does not exist independently of other internal states. Marangoni and Ickes (1989) summarise this well: *"loneliness is a relatively ambiguous internal state lacking a single, unique set of defining cognitions, emotions, or behaviour"* (p. 104). Due to this complexity, loneliness is explored within the influences of the Social Determinants of Health: individual lifestyle factors such as age and health; social and community networks including sense of mastery, culture, stigma; and general socio-economic, cultural and environmental conditions such as socio-economic status and neighbourhood / place (see Figure 5). Key definitions of loneliness follow.

Key Definitions

Many writers have explored the complexities, richness and intricacies of the varied human experience of loneliness, searching deeply into the full human experience. This is a search that winds its way through the fields of psychology, psychiatry, existentialism, theology, sociology, mythology, art, music, literature, politics, spirituality, philosophy, medicine, nursing and gerontology. This breadth reflects a desire to understand more fully the loneliness experience. However, it is not possible in a study of this size to explore all disciplinary research on loneliness. The focus is on loneliness and health (mental and physical).

Loneliness is a relative term, referred to as a universal affliction and malaise (McGraw, 1995), as frightening as death (Sadler, 1978), a painful feeling (Hawkley et al., 2008), and a public health problem (Ponizovsky & Ritsner, 2004). It is frequently associated with ageing due to declining health and social isolation (McInnis & White, 2001). The concept of loneliness as a universal experience is so widely accepted that some researchers argue that individuals are in denial if they do not report being lonely (Perlman, 2004).

There does not appear to be a convergence of theories around loneliness and researchers often do not agree on the conceptual constructs of loneliness. Many words are used interchangeably with loneliness – such as: alone, solitude, isolation, ostracism, withdrawn, pining, grieving, homesickness, anomie, lonesome, boredom, lost, deserted, companionless, nostalgia, singleness, uniqueness, sensory deprivation, lack of intimacy, unconnected, cut off, forgotten, ignored, alienated, egoless and left out. Each of these words has a different meaning that can be nuanced, leading to circular definitions of loneliness. Compounding this are comments from the psychiatric and existential literature suggesting that the meanings do not match the depth and anguish inherent in the experience of loneliness (Fromm-Reichmann, 1959; Mijuskovic, 1996; Moustakas, 1961; Rosedale, 2007). It is evident that the many definitions or understandings of loneliness depend on the field within which the concept is investigated.

The psychiatric literature, for example, is dominated by Fromm-Reichmann's work (1959), which proposed that the experience of loneliness can be so disabling, that it can lead to total withdrawal from society. Yet there is little evidence that loneliness can be classified as a psychiatric condition. Loneliness is not included in the latest version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2012). Booth (2000) put forward a case to include chronic and severe loneliness in the DSM, stating loneliness is suffered by millions of people everyday, is debilitating, and although sharing a number of characteristics with other conditions, is a discrete, dysfunctional condition. Booth believed when loneliness becomes pathological, dysfunctional and maladaptive, it is often paired with depression, narcissism, suicidality, alcoholism, anxiety and hypochondriases. Booth's perspective is of the extremely severe state of loneliness, and may not accurately reflect the daily experience of loneliness many individuals face in their lives.

Table 2 summarises various definitions of loneliness found in the literature from different perspectives. The range of definitions demonstrates the lack of consistency in conceptual constructs of loneliness.

Table 2 Loneliness Definitions

Author / Source	Definition	Orientation
Sullivan, 1953. *The Interpersonal Theory of Psychiatry*, New York, Norton.	The exceedingly unpleasant and driving experience connected with an inadequate discharge of the need for human intimacy, for interpersonal intimacy.	Psychiatry
Fromm-Reichman, 1959. Loneliness. *Psychiatry*, 22, 1-15.	The unpleasant experience that occurs when a person's network of social relationships is deficient in some important way, either quantitatively or qualitatively.	Psychiatry
Weiss, 1973. *Loneliness: The Experience of Emotional and Social Isolation*, Cambridge, MIT Press.	Loneliness appears always to be a response to the absence of some particular type of relationship, or more accurately, a response to the absence of some particular relational provision.	Psychology
Sadler and Johnson, 1980. From Loneliness to Anomia, pp 34-64, *The Anatomy of Loneliness*, New York, International Universities Press.	An experience involving a total and often acute feeling that constitutes a distinct form of self-awareness signalling a break in the basic network of the relational reality of self-world.	Psychology
Peplau and Perlman, 1982. Loneliness: A Sourcebook of Current Theory, Research and Therapy, *Wiley Series on Personality Processes* New York, Wiley Interscience	The unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or qualitatively.	Psychology

Author / Source	Definition	Orientation
de Jong Gierveld, 1987. Developing and testing a model of loneliness. *Journal of Personality and Social Psychology*, 53, 119-128.	Loneliness is a situation…in which the number of existing relationships is smaller than is considered desirable or admissible, as well as situations where the intimacy one wishes for has not been realised.	Psychology
Mijuskovic, 1996. The Phenomenology and Dynamics of Loneliness, *Psychology: A Journal of Human Behavior, 33:41-51*.	Loneliness, as a meaning, is a desire by ones self-consciousness to be related to another distinct self while yet experiencing the feeling that one is separate, alienated or estranged from the second self.	Philosophy/ Existentialism
Cacioppo, Ernst, Burleson et al., 2000. Lonely traits and concomitant physiological processes: the MacArthur social neuroscience studies. *International Journal of Psychophysiology, 35*, 143-154.	A complex set of feelings encompassing reactions to unfulfilled intimate and social needs.	Social Sciences
Cacioppa, 2008. John Cacioppo on Loneliness. *Love, Sex and Happiness*, from http://bigthink.com/ideas/5668	Loneliness is a feeling of social isolation, low quality personal contacts / interactions, feeling disconnected to other people.	Social Sciences
ElSadr, et al., 2009. Concept Analysis of Loneliness with Implications for Nursing Diagnosis. *International*	A subjective experience in which a person feels psychological discomfort and an inability to increase the quality and / or quantity	Nursing

Author / Source	Definition	Orientation
Journal of Nursing Terminologies and Classifications: 20, 1: 25-33.	of relationships to the person's desired level.	

The definitions have a common thread running through them, which is that loneliness tends to be an unpleasant experience with some level of deficiency in intimate relationships including a feeling of lack of fulfilment and separation from others. The concept of a subjective experience - not feeling connected to others and lack of fulfilment - is further developed in the next section where the literature on social and emotional loneliness is reviewed and deeper understanding is sought around the complexity of the loneliness experience. As a subjective phenomenon, each experience is different, making a single definition impossible.

Social and Emotional Loneliness

As discussed in the previous section, a number of authors have attempted to define types of loneliness (McGraw, 1995; Sadler, 1978; Weiss, 1973). Psychiatry focussed on loneliness to some degree (Fromm-Reichmann, 1959; Sullivan, 1953), but Robert Weiss' book *Loneliness* (1973) was one of the first explorations of loneliness in the social sciences field and has had a major impact on the field. However, the majority of his work was based on American women who were supporting each other through friendship groups. His conclusions around joining groups and replacing significant attachments were groundbreaking at the time and laid the foundation for more in-depth work of recent researchers. However, his study was narrow as it focussed only on American women and did not examine how other factors may impact on loneliness (i.e., health). Much of the more recent literature is attempting to understand social networks including how relationships benefit health and the ways relationships impact on loneliness.

Loneliness is often used throughout the social sciences literature interchangeably with emotional isolation, social isolation and lack of social support (Weiss, 1973). Social isolation and loneliness are often confused (de Jong Gierveld & Havens, 2004; Grenade & Boldy, 2008). Terminology around social isolation is inconsistent, with terms such as social

integration, social networks, and social engagement used interchangeably (Nicholson, 2009). Nicholson defined social isolation as *"a state in which the individual lacks a sense of belonging socially, lacks engagement with others, has a minimal number of social contracts and they are deficient in fulfilling and quality relationships"* (p. 1346). This definition is quite similar to the definitions of loneliness outlined earlier. However, there are factors associated with social isolation such as religiosity, place of residence, geographic distance from significant others, and weather, that have not necessarily been associated with loneliness (Kobayashi, Cloutier-Fisher, & Roth, 2009). Others define social isolation as an objective measure without a feeling of isolation attached to it (Luanaigh & Lawlor, 2008). Considering Dahlgren and Whitehead's model of the Social Determinants of Health (1991), Nicholson's (2009) definition above appears to fit well within the 'social and community networks' sphere. And, within Rowe and Kahn's Successful Ageing theory (1987), Nicholson's definition appears to fit well under 'engagement with life'.

Weiss reduced the loneliness experience to emotional and social loneliness. Loneliness through social isolation is lack of a network of social relationships with peers. When conducting a concept analysis of loneliness, ElSadr and colleagues (2009) concluded that social isolation was a possible cause of loneliness, and Carpenito-Moyet (2006) recommended *"deleting the diagnosis of social isolation from the North American Nursing Diagnosis Association (NANDA) International list because it is a precipitating factor, not a response"* (p. 28).

Weiss (1973) also defined loneliness in terms of emotional isolation, or the loss / lack of an intimate tie. The distinction between social and emotional loneliness has been well documented (de Jong Gierveld & Van Tilburg, 2006; Green, Richardson, Lago, & Schatten-Jones, 2001; Hawthorne, 2006; Hughes, Waite, Hawkley, & Cacioppo, 2004; van Baarsen, Snijders, Smit, & van Duijn, 2001). The quality of relationships appears to be more important than the size of the social network (Routasalo, Savikko, Tilvis, Strandberg, & Pitkala, 2006; Victor et al., 2002), again supporting the difference between social and emotional loneliness. There is some discrepancy about whether levels of loneliness and social isolation change over time (Dykstra, van Tilburg, & de Jong Gierveld, 2005; Wenger & Burholt, 2003) or whether loneliness is a fairly stable experience (Steed, Boldy, Grenade, & Iredell, 2007; Victor, Scambler, Bowling, & Bond, 2005). Findings and interpretations differ based on what is being measured and how the measurement is being conducted.

Whether loneliness can be reduced to only two components is highly questionable due to its very complex nature. Yet Weiss' typology has been widely accepted and researched. Nonetheless, Sadler & Johnson (1980) and McGraw (1995) disagreed that loneliness was experienced on only two dimensions. Sadler & Johnson combined psychology and sociology with existential phenomenology and proposed a conceptual model that better reflected their understanding of the complexity of the loneliness experience. Their model proposed four different types of loneliness and different combinations of these types, suggesting loneliness exists on multiple dimensions simultaneously. The four dimensions proposed by Sadler & Johnson were: cosmic, cultural, social and interpersonal. They suggested that when loneliness was experienced on more than one dimension, deep personal distress resulted with increasingly intolerable loneliness. Personal stress and frustration would be experienced on each dimension with the message of frustration varying from one dimension to another.

Sadler and Johnson acknowledged that loneliness was a very complex experience, that most of the literature up to their time had not adequately dealt with loneliness' inherent complexities and that it was this complexity that contributed to the perplexity surrounding loneliness research. Their model presents loneliness on a four dimensional scale based on an existential phenomenological foundation, a specific lived experience. They proposed that this specific lived experience involved an awareness of one's self that enabled the individual to differentiate the experience from other equally complex but different experiences such as fear, sadness or depression.

Although experiences such as depression are often associated with loneliness, Sadler and Johnson proposed that it was the aspect of self-awareness that enabled individuals to sort out those qualities that may be found within (but were not essential parts of) the experience of loneliness. Cacioppa (2008) found that depression and loneliness were two different and separate constructs, while conceding loneliness was a factor leading to depression. He believed loneliness made an individual want to reach out to others, while depression made an individual withdraw.

Sadler's conceptualisation offers us an explanation about why it is difficult to find agreement on the definition of loneliness and why the definition is often circuitous and / or all encompassing. He concluded that his multi dimensional model enabled a clarification around the meaning of loneliness. Loneliness experienced on one dimension differed from the others, yet it also had similarities. Sadler explained how his view of loneliness represented a

frustration – an unfulfilled expectation. There was an understanding within the experienced frustration that something was not right or was missing – and what was missing should not be missing. The individual felt he had the right to expect what he believed was rightfully his – that was, a state that free of loneliness. When this frustration was experienced on more than one dimension, Sadler proposed that it became more and more intolerable, producing deep personal distress and agony.

It could also be argued that loneliness exists on more than four dimensions and that Sadler & Johnson reduced the loneliness experience to a few simple components. However, they presented a workable model that accounted for some part of the complexity, variety, multidimensionality and richness of the experience of loneliness.

McGraw (1995) further explored the concept of loneliness and proposed that loneliness was experienced on many more dimensions than two or four. He proposed loneliness was experienced: metaphysically, epistemologically, communicatively, ontologically (intrapersonally), ethically (morally), existentially, emotionally, socially (friendship), culturally, and cosmicly. He acknowledged the work of Sadler in his own typology, but broadened the dimensions of loneliness to ten. With the many levels and forms of loneliness described and defined throughout the literature, it should come as no surprise that a single definition has not been able to capture the depth and richness of this concept / experience.

Johnson and Mullins (1987) introduced the concept of a loneliness threshold for seniors described as *"the minimal level of social contact that is needed for a person to avoid the subjective experience of loneliness"* (p. 260). However, whether the minimal level of social contact refers to the number of individuals, the time spent in social contact, or the quality of the social contact depends on cultural value systems, earlier life experiences, and individual personality traits.

In conclusion, loneliness can be conceptualised within many different frameworks. It can fall within individual lifestyle factors of the Social Determinants of Health framework when descriptors are used such as an unpleasant experience, a complex set of feelings, or a subjective experience in which psychological discomfort is felt. Loneliness can fall within the social and community networks area when descriptors are used such as a deficient social network, absence of relationships, smaller number of relationships than considered desirable, unfulfilled social needs, social isolation, or low quality personal contacts. In this way, it may

represent the consequences of low levels of engagement and hence 'unsuccessful' ageing (Rowe & Kahn, 1987). Loneliness can also sit comfortably within both individual lifestyle factors and social network areas if the definition used in this thesis is accepted as an 'unpleasant experience', the 'perception of unsatisfying relationships', and exists 'regardless of the size or adequacy of relationships'. As a subjective phenomenon, each experience is different, making a single definition impossible. However, Peplau and Perlman's (1982) description of loneliness as the unpleasant experience based on the perception that relationships are not satisfying regardless of the size / adequacy of social relationships, is used throughout this thesis as the definition of loneliness because it includes many of the aspects identified by researchers as salient to loneliness. Their definition assists in gaining a more comprehensive understanding of loneliness because it includes an 'unpleasant experience', the 'perception of unsatisfying relationships', and that loneliness can exist 'regardless of the size or adequacy of relationships'

Measures of Loneliness

A number of loneliness scales were developed from the 1970's onward to measure loneliness. These include The Loneliness Rating Scale (Scalise, Ginter, & Gerstein, 1984), The Differential Loneliness Scale (Schmidt & Sermat, 1983), The UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978), The Social and Emotional Loneliness Scale for Adults (DiTommaso & Spinner, 1993), and The de Jong Gierveld Loneliness Scale (de Jong Gierveld & Kamphuls, 1985). The UCLA Loneliness Scale and the de Jong Gierveld Loneliness Scale are now the two most widely used measures in loneliness research.

In general, researchers conceptualise loneliness as either uni-dimensional (a common loneliness core with varying intensity) or multi-dimensional (different experiences of loneliness) and the two most commonly used scales measure loneliness accordingly. The UCLA Loneliness Scale is a global measure of loneliness as a uni-dimensional experience. Overall, the scale's developers found a high degree of a common core of loneliness in their research. While acknowledging the differences inherent in Weiss' description of emotional loneliness and social loneliness, Russell and colleagues (1984) still argued that loneliness was uni-dimensional and that all loneliness had a common core. The UCLA Loneliness Scale is a 20-item, self-report measure, was developed with college students, and is probably the most widely used loneliness scale. Descriptions of loneliness from lonely persons were used to

formulate the 20 items on the scale. When the scale was first developed, all items were worded in the same direction (negatively) and this was revised by rewording half of the questions (Russell, Peplau, & Cutrona, 1980). The scale was again revised in 1994 (Russell, 1996) to address concerns that the scale was not reliable in measuring loneliness across various populations (i.e., older people). The revised scale (Version 3) was administered to college students, nurses, teachers and 'elderly', interviews were conducted, and the scale was again administered 12 months later. For all groups, the mean, median and mode were very similar, and scores were positively skewed (few individuals received high scores). Older participants had lower scores than the other groups. Russell concluded that the revised scale was a reliable and valid measure of loneliness. A shortened version consisting of 10 items was also developed for use when it was not feasible to use a 20-item scale. The loneliness scores for the older group were *"strongly related to the quality of the person's interpersonal relationships"* (p. 30) and were also significantly related to self-reported chronic illness and health status. When Vassar and Crosby (2008) examined the validity of the UCLA Loneliness Scale Version 3, they found that it was an accurate measurement of loneliness for use in the general population. They questioned whether it was as accurate with adolescents, immigrants and older populations, and suggested further research be undertaken. Since the development of the UCLA Loneliness Scale in English, it has been translated into many languages including: Dutch, Danish, Greek, Chinese, Korean, French, Japanese, Malay and Spanish.

In research with Dutch seniors, Routasalo and colleagues (2009) found no significant change in loneliness scores on the UCLA Loneliness Scale after an intervention which included group activities that increased participant's social activities, assisted in friendship development, and improved psychological well-being. The seniors reported that they did not feel lonely while attending the group activity, yet their scores did not change significantly. It is interesting to note that there is an inconsistency between the loneliness score and the seniors' self-report of feeling lonely. Routasalo and colleagues attributed the lack of change in scores to the scale's insensitivity to change, the changeable nature of loneliness, and the shamefulness of acknowledging loneliness. The results raise questions about the sensitivity of the scale, whether the scale was actually measuring loneliness, and why shame was assumed to be the reason that seniors stated they did not feel lonely while attending the group activity. This was one of the few studies the researcher was able to source that included a mixed

methods approach with administration of the UCLA Loneliness Scale as well as interviews with participants.

The de Jong Gierveld Loneliness Scale (de Jong Gierveld & Kamphuls, 1985) measures loneliness as a multi-dimensional experience. It is an 11-item measure of loneliness with a sub-scale of six items assessing emotional loneliness and a sub-scale of five items assessing social loneliness. De Jong Gierveld developed this scale based on the conceptualisation of loneliness as a multi dimensional experience and separated objective social isolation from subjective feelings of loneliness. The scale can be used to measure loneliness as a uni-dimensional experience by totalling both sub-scales, or it can be used to differentiate the emotional and social dimensions of loneliness by using only the preferred sub-scale. De Jong Gierveld and Tilburg produced a shortened version of the de Jong Gierveld Loneliness Scale (2006) consisting of six items suitable for large surveys. Since the development of the scale in Dutch, it has been translated into a number of languages including Chinese, English and Italian.

There is some debate in the field of loneliness research whether the word 'loneliness' should be used in measures of loneliness. Using the word loneliness implies a person acknowledges (within him / herself) feelings of loneliness, is willing to admit these feelings, and reports them accurately (Marangoni & Ickes, 1989). This may discourage people from self-identifying as lonely, leading to underreporting (Grenade & Boldy, 2008). Measuring loneliness is also difficult because measures assume there is a common understanding of the term 'loneliness' (Victor, Grenade, & Boldy, 2006). When comparing the direct measure of loneliness (questions that include the word lonely) with the indirect measure (questions that do not include the word lonely), Victor and colleagues (2006) found that up to 32% of those who reported never lonely / intermediate loneliness via the direct measure, identified as moderately lonely in the indirect measure. This concept of 'feeling lonely but for various reasons not admitting to it', contributed to both the UCLA Loneliness Scale and the de Jong Gierveld Loneliness Scale developers omitting the word 'lonely' from their scales. Interestingly, when measures are used for other states, i.e. health status, there is acknowledgement that how individuals self-report is based on their understanding of the term or word used. It is not clear why researchers consider 'loneliness' self-reporting to be less accurate than 'health' self-reporting. It appears that that the extensive research conducted in

self-reported health holds lessons and implications for further research into self-reported loneliness.

In conclusion, there are several well known measures for loneliness, with the UCLA Loneliness Scale and the de Jong Gierveld Loneliness Scale the two most commonly used measures. The UCLA Loneliness Scale conceptualises loneliness on one dimension - that is, a common core experience with varying intensity, while the de Jong Gierveld Loneliness Scale conceptualises loneliness on more than one dimension - that is, different experiences of loneliness. Both scales have been found to be valid and reliable measurements of loneliness in older people. Both scales omit the word 'lonely' in their questions in an attempt to reduce stigma associated with feeling lonely, and thus encourage respondents to answer questions without labelling themselves. The study reported in this thesis utilised the UCLA Loneliness Scale (Shortened) and the rationale for using it is discussed in Chapters Four and Five. Despite the different measures for loneliness, the prevalence of loneliness is difficult to report due to varying target groups, cultural conceptualisations of loneliness, and differing interpretations of words used in the scales (for example, 'sometimes' and 'often'). These factors contribute to the discussion about the wide range of loneliness rates across the world. The next section reviews the literature around prevalence and factors that influence the reporting of loneliness.

Prevalence of Loneliness

Loneliness is often referred to as common or widespread in older people (Luanaigh & Lawlor, 2008; Perlman, 2004; van Ravesteijn, Lucassen, & van der Akker, 2008) and has been measured through many surveys of older people. Research studies report differing rates of loneliness and this may be due to different types of measures, not directly asking about loneliness, not defining loneliness, reluctance about admitting feeling lonely, and having varying categories of loneliness. Regardless of these limitations, much measurement has taken place. In a British survey of people aged 65 years and older, 7% reported severe loneliness with this rate remaining fairly stable over the past five decades (Victor, et al., 2005). In a Western Australia survey of people aged 65 years and older, 7% reported severe loneliness with 31.5% feeling lonely sometimes (Steed, et al., 2007). Steed and colleagues found a range of 2-13% of older people in the United Kingdom reported being very lonely or often lonely. This rate was lower than younger people and people from other parts of Europe.

Walker and Maltby (1997) reported a loneliness rate of approximately 36% in people 65 years and older living in Greece. Yang and Victor (2008) reported 15.6% of China's older people (aged 65 years and older) were lonely in 1992 and 29.6% were lonely in 2000. Yang and Victor questioned the increase and noted that part of the difference in loneliness was due to different methodologies in the two surveys. Sugisawa, Liang and Liu (1994) found that 6.4% of Japanese people aged 60 years and older felt lonely most of the time and 20% felt lonely sometimes. Weeks (1994) estimated that up to 40% of older persons in general suffered from loneliness. In a group of Americans aged 50 years and older, overall prevalence was 16.9% (Theeke, 2009) and Weiss (1973) reported that in a representative sample of Americans, over 25% reported feeling lonely.

Flood (2005) found that Australian men tend to be lonelier than women at all ages with the deepest levels of loneliness experienced by men 35-44 years old. Moorer and Suurmeijer (2001) found that the average loneliness score for Dutch people aged 66 years and older was lower than expected, and argued that most seniors did not feel lonely. Havens and colleagues (2004) also found that loneliness was not a universal phenomenon among older adults. Although 90% of surveyed Britons felt loneliness was a problem in old age, actual loneliness rates only ranged from 5-9% and remained stable between 1945 and 1999 (Victor, et al., 2002). Victor also reported that loneliness rates fell 18% between 1945 and 1999 for those living alone, yet during the same period, the rate of those living alone increased 27%. Other researchers conclude that loneliness is increasing. Over a seven year period Dykstra and colleagues (2005) found that loneliness increased in general with age, increased the most in oldest old, and increased when there was the loss of a partner. She and others (de Jong Gierveld & Havens, 2004; Havens, et al., 2004; Wenger & Burholt, 2003) also found that loneliness varied based on marital status, decreased as health improved and increased as health deteriorated. Perception of support has been found to be more important than actual level of support (Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Older people describe their own emotional experiences and the emotional experiences of others more positively than younger people describe their experiences (Löckenhoff, Costa, & Lane, 2008). More positive perceptions of support and life situations could be part of the reason why lower loneliness rates are reported in older populations. Table 3 summarises the studies of the prevalence of loneliness described above.

Table 3 Levels of Loneliness

Author	Location	Sample Size	Measure	Prevalence Rates
Victor et al, 2005	Great Britain	999	Self assessed loneliness; compare current level of loneliness with how they felt a decade earlier; and rate the comparison as ' better', 'worse' or 'unchanged'.	7%
Steed et al, 2007	Australia	353	How often do you feel lonely; days and times of greatest loneliness; has loneliness increased over past year and past 10 years?	7%
Walker and Maltby, 1997	Greece	unknown	unknown	20%
Yang and Victor, 2008	China	1992 - 20,000 2000 - 20,250	Do you feel lonely? What do you think of the following statements: I often feel lonely.	15.6% - 29.6%
Sugisawa, Liang and Liu, 1994	Japan	2,200	Single question - feelings of loneliness, three point scale (little, some, strong).	6.4% (strong)
Weeks, 1994 (citing Cox, 1987)	England	9,003	Unknown	40%
Theeke, 2009	USA	13,812	Center for Epidemiologic Studies Depression Scale (CES-D) - Single item question - Have you been feeling lonely for most of the past week?	16.9%
Weiss, 1973 (citing Bradburn, 1969)	USA	1,469	During the past few weeks did you ever feel very lonely or remote from other people?	26%

Author	Location	Sample Size	Measure	Prevalence Rates
Flood, 2005	Australia	13,000	An index based on responses to ten survey questions regarding the personal support and friendship available to respondents.	21%
Moorer and Suurmeijer 2001	Netherlands	723	de Jong-Gierveld Loneliness Scale	9-16%

There are discrepancies in the literature about whether loneliness is increasing or decreasing in seniors, and what factors influence loneliness. Loneliness and conflict have been found to decrease with age, while positive social interactions and the number of close confidants, have been found to increase with age (Schnittker, 2007). Schnittker concluded that both psychological and social environments impact on loneliness in older age. In general, it is well accepted that loneliness increases when relationships are not fulfilling, regardless of declining health, lower SES, or number of contacts.

Causes of Loneliness

Much of the current research supports the conclusion that aloneness is not synonymous with loneliness although it may be a contributing factor (Cohen-Mansfield & Parpura-Gill, 2007; Peplau & Perlman, 1982; Routasalo, et al., 2006; Savikko, Routasalo, Tilvis, Strandberg, & Pitkälä, 2005; Weiss, 1982; Wenger & Burholt, 2003). The emphasis is on the quality (satisfaction and expectations) of relationships as more important in reducing loneliness and increasing well-being, than the number of relationships in an individual's life (Litwin & Shiovitz-Ezra, 2006; Russell, 1996; Ryan & Willits, 2007; Savikko, et al., 2005), although Hawkley and colleagues (2008) found that small social networks were associated with higher levels of loneliness.

There are many circumstances under which loneliness can be felt. Individuals can experience loneliness while in a marriage (de Jong Gierveld, Broese van Groenou, Hoogendoorn, & Smit, 2009; Dykstra & de Jong Gierveld, 2004; Korporaal, Broese van Groenou, & van Tilburg, 2008) and while living with children (Flood, 2005; Wenger & Burholt, 2003). While the empirical loneliness literature indicates that marriage is protective against loneliness

(Creecy, Berg, & Wright, 1985; Dykstra, 1995), others have found that loneliness in marriage exists and may be the result of dissatisfaction with the relationship (de Jong Gierveld, et al., 2009; Hawkley, et al., 2008). Higher levels of marital disagreements, poor evaluation of married sex life, and lack of intimacy and communication contributed to higher loneliness, while the degree of emotional support received from a spouse contributed significantly to lower loneliness.

Outside of marriage and particularly with children, loneliness appears lessened when there is a balance in giving and receiving support. Dutch seniors experienced decreased loneliness when they felt they gave and received support in a balanced way with parents, siblings and children (de Jong Gierveld & Dykstra, 2008) and seniors over 85 years of age felt their children's affection was important and reduced feelings of loneliness (Long & Peter, 2000). Interestingly, seniors also report that interaction with children and grandchildren has no effect on feeling lonely (Dugan & Kivett, 1994; Lee & Ishii-Kuntz, 1987).

Seniors reporting the highest well-being received high support from both friends and family (Dupertuis, Aldwin, & Bosse, 2001), and being partnerless is not necessarily associated with loneliness when the individual has supportive relationships (Dykstra, 1995). Loneliness is not an inherent part of ageing and the perception that relationships are fulfilling appears to be one of the most important predictors of loneliness (Creecy, et al., 1985).

Although the research can appear to be contradictory, there seems to be general agreement that there are a number of factors that influence loneliness. These are usually identified as: living alone, being childless, having low income, being isolated, and poor self-assessed health (Alpass & Neville, 2003; Creecy, et al., 1985; de Jong Gierveld, 1998). Because loneliness is an intensely subjective experience, each individual's experience of loneliness is different and difficult to compare to other's experience, and this may contribute to the contradictory findings about factors that contribute to loneliness. Additionally, with no agreed definition of loneliness, contradictory findings should not be unexpected. These findings may be due to the differences in populations studied, the lack of a well-defined term, response rates, measures used, and the current circumstances of research respondents.

In summary, the current literature identifies a wide range in reported loneliness rates in older people across the world. Severe loneliness in older people has been reported as 7%, with feeling lonely some of time as high as 40%. On the one hand there are indications that

loneliness is increasing in older people; on the other, decreasing. The literature also suggests there are many factors associated with loneliness, such as marriage, family lies, friends, living alone, income levels, and health. Loneliness can be felt as significant or insignificant. Despite the development of a number of research instruments to measure it, loneliness continues to be difficult to measure and define, as noted by the wide variation in prevalence rates.

Overcoming Loneliness

It has been suggested that once loneliness has been acknowledged, the individual needs to reconnect with others through a few high quality relationships in a safe environment, matching common interests / attitudes / activities / values (Cacioppo, 2008). Activities such as gardening, reading, and socialising with family and friends have been nominated by seniors as important in reducing and / or coping with loneliness (Pettigrew & Roberts, 2008). Rook (1984) suggests that lonely people be provided with opportunities to improve social relations and learn how to enjoy time alone. Internet usage and electronic communications also have been recommended to connect older isolated people to others (Swindell, 2000). However, in a systematic review of the effectiveness of health promotion interventions to reduce social isolation and loneliness in seniors, Cattan and colleagues (2005) found only one third of interventions were effective, and these were interventions focussing on social activities for specific groups that included education or training. Additionally, programs were more likely to be effective when seniors were involved in all aspects of the programs. Little evidence has been found about the effectiveness of programs that claim to reduce social isolation (Findlay, 2003).

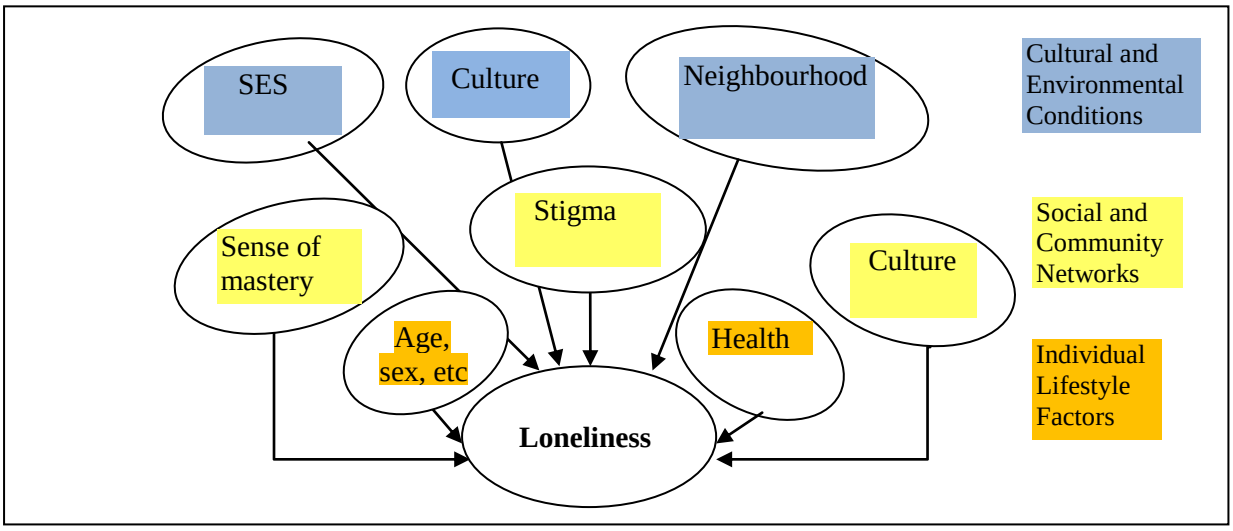
The literature points to meaningful social relationships and activities as important in helping older people feel less lonely and more connected. Rowe and Kahn (1997) also identified productive activities and maintenance of relationships as crucial to successful ageing.

The Social Determinants of Health

Figure 5 presents a model developed by the researcher based on Dahlgren and Whitehead (1991) and Rowe and Kahn (1987) to demonstrate how the forces identified in the Social Determinants of Health and Healthy Ageing influence loneliness within the group of seniors in this study. Health lies at the centre of both the Social Determinants of Health and

Successful Ageing theories. With loneliness proposed as a component of health, the factors influencing health also influence loneliness. Culture has been included within two levels because the influence on loneliness is from the overarching cultural group (i.e., collectivist) as well as from family, social and community networks formed within cultural settings. In-depth discussion of the levels and factors within each level follows.

Figure 5 Influences on Loneliness based on a Social Determinants of Health Approach



Individual Lifestyle Factors Influencing Loneliness

This section explores loneliness and health within the 'individual lifestyle factors' ring of the Social Determinants of Health approach which includes physiology, heritability, and self perceptions.

Loneliness and Health

During the past 30 years, a link between loneliness (loss of connection and / or social isolation) and deteriorating health has emerged as a major trend in the field of loneliness research, most notably commencing with Berkman and Syme (1979). More recently, researchers have uncovered physiological effects and possibly genetic associations between health status and loneliness (Cacioppo, 2008; Cacioppo, et al., 2000; Cacioppo, Hawkely, & Berntson, 2003). These include higher blood pressure in older adults (Hawkley & Cacioppo, 2007), depression (Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006; Creecy, et al., 1985; Heikkinen & Kauppinen, 2004; Tiikkainen & Heikkinen, 2005), hypertension, increased risk of Alzheimer disease (Wilson et al., 2007), having a heart condition (Sorkin,

Rook, & Lu, 2002) and poor physical health in general in people who are lonely (Stek, Vinkers, Gussekloo, Beekman, & et al, 2005). Boomsma and colleagues (2005) showed possible heritability involved in loneliness. Poor health has been found to be related to increases in loneliness for those over 85 years (Long & Peter, 2000) and loneliness has been reported by General Practitioners to be widespread in their patients (van Ravesteijn, et al., 2008). The theory of successful ageing proposes that the combination of the absence of disease / disability, high cognitive / functional capacity and engagement with life embody the concept of successful ageing most fully (Rowe & Kahn, 1997). This approach would support a link between not feeling lonely and good physical health.

In a study that separated the distinct concepts of social disconnectedness (lack of social relationships / few social activities) and perceived social isolation (loneliness / perceived lack of social support), Cornwell and Waite (2009) found individuals who adjusted well to being alone did not experience the same health problems as individuals who were alone and also felt lonely. They concluded that social disconnectedness was not related to health unless it brought feelings of loneliness and isolation. This accounts for how individuals with very few relationships may not feel lonely, and may experience good health. The perception of being socially connected has been found to be more important to health than the perceived availability of social support (Ashida & Heaney, 2008; Taylor & Lynch, 2004). Equally, engagement with life (Rowe & Kahn, 1997) may be less about the number of activities and relationships maintained, and more about the perception of being engaged with life.

A number of factors have been found to protect against loneliness. These include good health, higher household income, better education and a spousal confident (Hawkley, et al., 2008). Pets (Krause-Parello, 2008) and friends (Mendes De Leon, 2005) can also play a significant role in reducing loneliness and improving health. Both emotional support and companionship protect health (Sorkin, et al., 2002). The direction of causality, however, is unclear. Whether feeling lonely leads to lack of engagement and poor health, or lack of engagement and poor health lead to feeling lonely, has not been determined. While the influence of good health as a factor that protects against loneliness appears strong, research does not support poor health as the cause of loneliness. Health as its own topic (not incorporating loneliness) is discussed in more detail later in this chapter where Western and Eastern concepts of health, self-reported health, health and SES, and health and neighbourhood are reviewed.

In conclusion, over the past 30 years, research on loneliness has grown considerably, linking it to physical and mental health conditions. The possibility of a genetic link and heritability has also emerged. While a number of factors have been found to protect against loneliness, research also indicates that those individuals who perceive themselves to be socially connected and not lonely, are in better health than those who feel isolated and lonely, regardless of the actual living situation. This issue of how older people perceive loneliness is similar to lay perceptions of successful ageing which may differ quite remarkably from academic perceptions of successful ageing. One of the questions that the study reported in this thesis seeks to answer through face-to-face interviews, is whether older people perceive themselves to be lonely whether or not they score in the high range on the UCLA Loneliness Scale. The next section explores the Social Determinants of Health 'middle ring' of social and community networks.

Social and Community Networks

This section explores loneliness within the 'social and community networks' ring of the Social Determinants of Health approach. Rowe and Kahn (1998) identified successful ageing as *"dependent upon individual choices and behaviours"* (p.37), and this implies that loneliness is situated within the 'individual lifestyle factors' ring. Yet, this section examines influences outside of individual choices and behaviours and includes social influences on loneliness (and Successful Ageing) such as stigma, sense of mastery, cultural contexts, and family.

Stigma

Stigma is an undesirable differentness or attribute of disgrace that marks an individual (Goffman, 1986). More often than not this mark refers to disgrace itself and not an actual physical mark. Stigma is bound up within society's perception of an individual's social identity, is explicitly socially undesirable and discrediting, and is relative. What might be discrediting to one individual may not be discrediting to another (Goffman, 1986). Goffman also proposed that stigma could be of the physical body (visible), of the individual character (non-visible), and / or tribal (through affiliation with a group).

Stigma comprises a number of key elements including embarrassment, discrimination, and emotional distress (Link & Phelan, 2001; Van Brakel, 2006). Stigma can be applied

individually as a psychological construct and more broadly as a sociological construct (Link & Phelan, 2001;Yang, et al., 2007). The concept of stigma has been applied to many circumstances including unemployment, various diseases, mental illness and welfare use (Link & Phelan, 2001). Link and Phelan argued that the challenge is to truly understand what stigma is within a social context rather than individual context. A less limiting definition, more useful for public health, was formulated by Weiss and colleagues (2006). They proposed that

> *"stigma is typically a social process, experienced or anticipated, characterized by exclusion, rejection, blame, or devaluation that results from experience, perception or reasonable anticipation of an adverse social judgement about a person or group".* (p.280)

This reformulated definition is broad and can include successful ageing, or 'unsuccessful' ageing. For example, Holstein (1992) questioned the emphasis on 'productivity' in older age, and felt it excluded and devalued groups such as women and people with disabilities because of their sometimes limited ability to participate in economic activities. Holstein and Minkler (2003) also criticised the values of health and active participation in Rowe and Kahn's Successful Ageing model as exclusionary to those individuals who are unable to express good health and actively participate in society. They examine the relationship between individual, social and cultural norms, and ask why gender, social class, income, safe neighbourhoods, and nutritious foods are not considered in Rowe and Kahn's model. Holstein and Minkler argue that a normative term such as 'successful ageing' can only ever marginalise all but the dominant culture. Taking this perspective, Successful Ageing is stigmatising.

The stigma resulting from loneliness also fits well within this reformulated definition. Through this lens, loneliness can be seen as an experience that excludes an individual from social acceptance.

Stigmatised individuals often accept their discredited, devalued status (Campbell & Deacon, 2006) and stigma's reach can be broad (Olsson, Lyon, Hornell, Ivarsson, & Sydner, 2009). Discrimination, stigmatisation, ostracism and betrayal underpin feelings of rejection that determine future actions (Richman & Leary, 2009). A strong association has been found between stigma and mental disorders (particularly depression and anxiety) which has led to

significant activity limitation (Alonso et al., 2008). In a literature review of stigma measurements of chronic health conditions, Van Brakel (2006) found the impact of stigma was remarkably similar in different countries and health conditions despite cultural differences and differences in determinants. Van Brakel found that stigma affected all areas of life and suggested that it might be possible to develop 'transcultural' generic instruments, while also acknowledging the challenges of assessing across cultural boundaries.

Loneliness has been described as shameful (McInnis & White, 2001; Sadler, 1978) and socially undesirable (Ponizovsky & Ritsner, 2004). The fear of being perceived as socially undesirable may result in less reporting of loneliness due to the stigma of being perceived as lonely (Victor, et al., 2002). In a society where social connections are valued and encouraged, a lonely individual may be stigmatised (Gordon, 1976), perceived as not worthy of social connections and discredited (Rokach & Brock, 1997). As such, the rate of loneliness may be higher than reported. Goffman (1986) alluded to these possibilities when he discussed 'differentness'. He stated individuals did not want to be perceived as different, and generally made the decision to hide their differentness. Stigmatised people are seen as different, and loneliness makes a person different. It would be understandable that lonely individuals would conceal their loneliness from others when in social situations so as not to appear different.

Although loneliness is not a mental illness, lonely people have been described as needy, responsible for their loneliness and overly dependent – similar to the descriptions of older adults with mental illness (Webb, Jacobs-Lawson, & Waddell, 2009). When Webb and colleagues surveyed a group of seniors about other seniors with anxiety, depression or schizophrenia, the surveyed group was more critical of seniors with anxiety as they felt anxious individuals were more responsible for their condition than non-anxious individuals. They also felt anxiety was not biological, and that the anxious individual could change (if they wanted to or if they tried harder). Webb concluded that if individuals were blamed for their illness / condition they may be more stigmatised and discriminated against than individuals who were perceived as not responsible for their condition / illness. Following this line of reasoning, people may perceive loneliness as a condition that the particular lonely individual is responsible for creating and resolving. If this were the case, the lonely individual could feel stigmatised.

Sense of Mastery

Mastery refers to the extent of control felt over one's life (Pearlin & Schooler, 1978). This includes people feeling: they are in control of and can solve their own problems, they can change important things in their lives, they are shaping their own future, and / or they can do just about anything they set their mind to. Mastery provides a source of resilience and is an effective coping mechanism that mediates stress (Pearlin & Schooler, 1978). This coping mechanism comprises a stronger sense of control over life events and outcomes, and a reduced sense of passive acceptance of life events. The term 'sense of control' is a similar concept (Schieman, 2001) and is defined as *"the extent that an individual perceives having personal power and direction over outcomes in life"* (p. 154). Successful ageing incorporates a sense of mastery within the component - high cognitive and physical function. Feeling in control of one's life factors strongly in successful ageing and is an important element for well-being, self-confidence, self-efficacy, flexibility and inner strength (Baltes & Baltes, 1986; Bandura, 1981; Brandtstadter & Galtes-Gotz, 1990; Lewis, 2010; Rowe & Kahn, 1987; Tate, et al., 2003).

Ryff (1989) describes 'environmental mastery' as necessary for successful ageing and found that older adults rated themselves higher on environmental mastery than did younger adults. She argued that *"active participation in and mastery of the environment are important ingredients of an integrated framework of positive psychological functioning"* (p. 1071). According to Ryff, a person high in environmental mastery is competent in managing the world they live in and makes effective use of surrounding opportunities.

A sense of mastery has been linked to personality characteristics but has also been shown to be related to social determinants of health conditions such as SES, education, and income in particular (Pearlin & Schooler, 1978; Pudrovska, Schieman, Pearlin, & Nguyen, 2005; Schieman, 2001). Following health promotion and prevention practices, higher self-ratings on general health status have been found to be related to sense of mastery (Seeman & Seeman, 1983) and physical and mental well-being have been found to be a major predictor of mastery (Wolinsky, Wyrwich, Babu, Kroenke, & Tierney, 2003) as people age. Social role, self-reported global health, education and financial satisfaction are also related to mastery (Schieman, 2001).

Low sense of mastery / control in older age has been related to more psychological distress and less responsibility for health (Lachman & Weaver, 1998; Rodin & Timko, 1991). The cumulative disadvantage of economic hardship can threaten health in late life and is related to a lowered sense of mastery (Pudrovska, et al., 2005). Pudrovska and colleagues proposed that seniors with a higher sense of self-mastery see life events as challenging (not threatening), feel more confident about solving problems, feel optimistic and perceive non-monetary success (developing friendships, engaging in social activities) as more important than monetary success. Through maintaining an optimistic outlook and attributing less value to monetary success, having quality relationships, and being in a position of higher SES (affluence), individuals are better equipped to cope more effectively with stress and life conditions (Pearlin & Schooler, 1978). A stronger sense of mastery / control leads to stability in older age through accommodating goals and ambitions (Brandtstadter & Rothermund, 1994). Redefining or accommodating goals makes them more achievable and leads to stronger feelings of sense of mastery / control.

A sense of mastery has also been associated with income and health in people of different ages. In a study of people aged 25-75 years of age, Lachman and Weaver (1998) found lower levels of mastery were linked to low income; however a high sense of mastery was found in some individuals with low incomes and a low sense of mastery was found in some individuals with high incomes. Those individuals with low incomes and high levels of mastery appeared to have the same health benefits as individuals with high incomes. Lachman and Weaver found that a high sense of mastery was beneficial to all groups in terms of health. While they were not able to explain their results, they hypothesised that differences may have been due to the perceptions of the individuals concerned. Perceiving that one is in control may have the same beneficial effects of actually being in control.

Research focussing on sense of mastery / control and culture found various results. Asian-Americans living in the U.S. and Asians living in Asia reported lower levels of perceived control than non-Asians, but it had less impact on psychological distress for Asians (Sastry & Ross, 1998). The researchers hypothesised that this was due to the Asian culture emphasising subordination to family, and collectivist values. Research with immigrant populations found that difficulty accessing transport and lack of integration into the new culture was related to a lower sense of self-mastery (Glasgow, 2000; Jang, Kim, Hansen, & Chiriboga, 2006; Schaie & Pietrucha, 2000). Reduced income and increased functional disability posed a significant

threat to mastery in a group of Korean elders, results that were not dissimilar to previous research with non-Asian samples (Jang, Chiriboga, Lee, & Cho, 2009). Additionally, Korean immigrants living in Canada who experienced greater feelings of mastery, experienced better mental health (Noh & Avison, 1996).

Loneliness in Cultural Context

> "*A culture consists of the criteria or guidelines for speaking, doing, interpreting, and evaluating that people who live and work together have acquired in the course of interacting with one another in the conduct of recurring activities and that they have thus learned to attribute to one another....An ethnic group is a set of people whose members appear to others (and often to themselves) as being similar in language or cultural traditions (such as religion) in contrast with other such sets. An ethnic group also may, but need not, be a society*." (Goodenough, 1999) (p. 85)

As a universal phenomenon (McGraw, 1995), loneliness crosses cultures and boundaries. Increasing age, poor self-reported health and marital status have been significantly associated with loneliness for Chinese seniors living in China (Yang & Victor, 2008), as they have been for non-Chinese seniors. Yang and Victor also found that severe loneliness was much higher in China than in economically more advanced countries, and rural seniors were lonelier when they thought their relations with others were poor and believed that their children were not filial. This aspect of filial duty and good social relationships is specific to the Chinese culture and underlies the importance of social relationships for Chinese seniors. Confucian ideals were found to have a strong impact on how Chinese seniors experienced well-being and loneliness, with interpersonal harmony cited as a key element in maintaining mental health (Hsiao, Klimidis, Minas, et al., 2006). Chinese seniors living in Hong Kong without children were found to be lonelier and more depressed than those with children regardless of gender, marital status, education level, self-reported health or financial strain, with divorced and widowed seniors the loneliest (Chou & Chi, 2004). Chinese empty-nesters living in China were found to be lonelier and have worse health than non-empty nesters, and Chinese older women without children felt lonelier than Chinese older women with children (Liu & Guo, 2007; Wu, et al., 2010). Older Chinese women migrants living in Brisbane who were restricted in activity due to lack of transport, were socially isolated, felt lonely, and had strained relations with their adult children (Ip, et al., 2007). Examining the Chinese

Longitudinal Healthy Longevity Survey, Sun and Liu (2006) found for Chinese seniors 80 years and older, the favourable effects of social activities on health decreased.

Cultural background affects the way individuals cope with loneliness and Western concepts cannot be used universally in non-Western cultures (Rokach, 1999). When Rokach examined loneliness within cultures, she found significant differences in the family-oriented cultures of South Asia and the more individualist culture of North America. She also found differences in how immigrants to North America from South Asian countries coped with loneliness. Cultural differences were found to be important and further research was recommended to explore how loneliness was experienced in different cultures. Differences have been found in other cultural groups as well. Older Italians were generally more lonely than older Dutch (van Tilburg, et al., 1998) in part due to the cultural differences between northern (individualistic) and southern (family-oriented) Europe. Higher rates of loneliness were found in people who lived alone in strongly bonded Finnish and Greek communities (Jylha, 2003). Czechs valued family ties and relationships while Canadians valued independence (Rokach & Bauer, 2004). Yet Canadian seniors scored higher on individualism and felt more socially connected than other age groups. Seniors were more able to feel connected, productive and part of their community and Rokach and Bauer felt *"the experience of loneliness is varied depending on one's culture, background, and age group"* (p. 12).

Ethnic minorities in the U.S. use families for support more than the non-ethnic majority (Berges, Dallo, DiNuzzo, Lackan, & Weller, 2006) and Japanese seniors have stronger family ties than friendship ties (Kendig, Koyano, Asakawa, & Ando, 1999). While loneliness appears to be culture bound (van Tilburg, Havens, & de Jong-Gierveld, 2004), qualitative studies exploring this concept are more limited than quantitative studies exploring loneliness rates. Investigating the different meanings associated with loneliness across cultures through qualitative research is likely to reveal more interesting and insightful information.

Loneliness exists within cultural contexts and viewpoints. Chinese definitions of loneliness may be quite different to non-Chinese definitions of loneliness with research supporting the concept that loneliness for Chinese seniors is family centred. It is possible that friendships may be more important to reducing loneliness in an individualistic culture whereas family may be more important to reducing loneliness in a collectivist culture (Perlman, 2004). Whether loneliness exists within family-centred or friendship circles, with the definition of loneliness so fluid, it is difficult to understand how individuals within various cultures

conceptualise loneliness. That culture influences the experience of loneliness is widely accepted. Yet it is not clear whether the underlying cultural conceptualisations of loneliness have been uncovered.

Loneliness and Family

Children, family and friends continue to influence perceptions of loneliness in different ways across cultures. Self-reported close friends have been found to be important to feeling lonely whether family lived in close proximity or not (Eshbaugh, 2009), network type / social interaction with friends improved morale (thus reducing loneliness) while interaction with children and grandchildren had little effect on morale (Lee & Ishii-Kuntz, 1987; Litwin, 1998). Support from a variety of friends and family is also important to higher well-being (Beckman, 1981; Fiori, Antonucci, & Cortina, 2006).

While the quality of relationships determines what makes one feel lonely (not the contact and proximity to children) (Victor, et al., 2005), contact with children and grandchildren was found to be especially important in reducing loneliness in Australian seniors (Pettigrew & Roberts, 2008).

Chinese seniors living in Taiwan had more relatives in their social network, a smaller network and better health than Americans seniors living in Oregon (Silverman, Hecht, & McMillin, 2000). The American seniors had larger networks, fewer relatives in their network and significantly lower health. In Canada, Chinese seniors, in general, were living in larger households than non-Chinese Canadians (Chappell, 2003).

There are significant differences noted regarding the effects of children and friends in reducing loneliness. Differences may be due to lack of a clear definition of loneliness, reluctance to admit feeling lonely and not considering the cultural constructs of loneliness. These are relevant aspects of loneliness that require further investigation.

This section explored loneliness within the 'social and community networks' ring of the Social Determinants of Health approach and included social influences on loneliness (and Successful Ageing) such as stigma, sense of mastery, cultural contexts, and family. The stigma associated with loneliness was explored within a social context as it is an experience that excludes individuals from social acceptance. With loneliness described as shameful and socially undesirable, the fear of being labelled 'lonely' may prevent lonely people from

identifying as lonely, and they may also blame themselves for feeling lonely. This can lead to a feeling of powerlessness, and therefore sense of mastery was examined. The literature about sense of mastery or control over a person's life has shown an association with higher self-reported health, and has been shown to be related to education, SES and income. In older age, low sense of mastery has been related to psychological distress, and high sense of mastery has been related to optimism, stability and accommodating goals to make them more achievable. Stigma and sense of mastery are culturally laden, leading to an exploration of loneliness as a social experience - with particular emphasis on Asian and Anglo cultures. Cultural background affects the way individuals cope with loneliness and the influence of family plays a major role in cultural backgrounds. Higher rates of loneliness have been found in older people who live in strongly bonded groups such as Asian families. For many Asian societies, a family centred life is important to feeling socially connected, while for many Western societies, a strong social network outside of the family offers social connections. To date, loneliness in the context of Successful Ageing has not been well researched, and research about social conceptualisations of loneliness and Successful Ageing is also lacking. The study reported in this thesis seeks to understand the social (and cultural) differences in conceptualisations of loneliness and how these conceptualisations influence Successful Ageing.

General Socio-Economic, Cultural and Environmental Conditions

This section explores loneliness and health within the broad and overarching Social Determinants of Health influences of SES, neighbourhood and culture from a societal perspective.

Loneliness and SES

Higher education, higher income and better health are associated with less feelings of loneliness (Lee & Ishii-Kuntz, 1987; Theeke, 2009), and living in a smaller household, lower levels of education and lower income are associated with higher feelings of loneliness (Savikko, et al., 2005; Theeke, 2009). Low income, reduced mobility and financial resources predict loneliness with the mean score of low income seniors on the UCLA Loneliness Scale significantly higher than the mean score of healthy, higher income seniors (Cohen-Mansfield & Parpura-Gill, 2007). The influence of SES on many factors is strong: loneliness (Cohen-

Mansfield & Parpura-Gill, 2007; Lee & Ishii-Kuntz, 1987; Theeke, 2009), health (Beydoun & Popkin, 2005; Blaxter, 1990; Huisman, et al., 2003; Lawlor & Sterne, 2007; Olsen & Dahl, 2007), morale (Lee & Ishii-Kuntz, 1987; Moon, 1996), and sense of mastery (Pearlin & Schooler, 1978; Pudrovska, et al., 2005).

Loneliness and Neighbourhood

The influence of the neighbourhood on older people's loneliness is reported with differing results. Moorer and Suurmeijer (2001) posit that neighbourhood influence might not be significant because loneliness is a psychological experience and may not be highly influenced by neighbourhood characteristics. However, research demonstrates that health (and therefore potentially loneliness) is influenced by neighbourhood. Neighbourhood is discussed in more detail in the section on Health and Neighbourhood.

Collectivism and Individualism

When examining differences between western and eastern cultures, terms such as individualism and collectivism are often used. Triandis (1995) defined individualism as

> *"a social pattern that consists of loosely linked individuals who view themselves as independent of collectives; are primarily motivated by their own preferences, needs, rights and the contracts they have established with others; give priority to the personal goals over goals of others; and emphasize rational analyses of the advantages and disadvantages to associating with others"* (p. 2).

And he defined collectivism as

> *"a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, co-workers, tribe, nation); are primarily motivated by the norms of, and duties imposed by, those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives"* (p. 2).

Cultures vary enormously and individuals can maintain values that differ from their cultural setting. A person living in an individualist culture can be collectivist in nature and vice versa. However, in general, individualistic cultures are primarily populated by those who support

individualistic values, and collectivist cultures are primarily populated by those who support collectivist values.

China, Malaysia, Taiwan and other Asian countries are considered cultures with collectivist values, while Great Britain and Australia are considered highly individual cultures (Triandis, 1995). In collectivist cultures, marriage links two families and the child-parent bond is strong, whereas in individualist cultures, marriage links two individuals and the child-parent bond is less strong (Triandis, 1995). Child rearing in Chinese culture is based on strong bonds of unlimited support and togetherness, while child rearing in individualistic cultures is based on self-reliance and independence (Wu, 1985). In Chinese culture, collectivism is valued and supports the group while individualism is considered selfish; in Western culture individualism is valued and embodies freedom, personal responsibility and well-being (Ho & Chiu, 1994). Children (particularly sons) are expected to be filial and support parents to age successfully on a long-term basis (Fry, et al., 1997). In general, in a collectivist culture (i.e., Chinese), individuals are embedded in relationships, while in an individualist culture (i.e., Australia), individuals tend to view relationships as external to themselves.

Much of the discussion about individual / collective cultures was expanded by Hofstede (1980) who developed a database of more than 100,000 responses to work-related values from 40 countries. A 100-point scale comprising four cultural dimensions (power distance, individualism, masculinity and uncertainty avoidance) was developed and countries were ranked against his scale. The cultural dimensions have provided a number of explanations about cross-cultural differences and work-related values. The countries ranked highest on the individualism component are the U. S. (91), the United Kingdom (89), Australia (90), and Canada (80). The countries ranked lowest on the individualism component (that is, highest on collectivism) are Guatemala (6), Ecuador (8), Panama (11) and Columbia (13). Rated slightly less collectivist are the Asian countries of Indonesia (14), Taiwan (17), South Korea (18), Singapore / China/ Thailand / Vietnam (20), Hong Kong (25), Malaysia (26), and Japan (46).

Questioning whether Hofstede's model was culture-bound to Western ideology, The Chinese Culture Connection (1987) developed a survey of Chinese values and Chinese culture. They were interested in determining whether they would find similar cultural dimensions using a particular Eastern-bound instrument. They found strong correlation on three of Hofstede's four dimensions, supporting collectivism and compassion as major values. A new value that

surfaced was Confucian work dynamism, and it was unrelated to Hofstede's cultural dimensions. The Chinese Culture Connection concluded that although they found similar results in a number of areas, by using a specific culturally constructed tool they discovered cultural values and insights that were unable to be discovered using a non-specific cultural tool.

Zhang and Baker (2008) explain that Chinese and non-Chinese perspectives are remarkably different due to the core concepts that are part of the Chinese thought process. They describe the core concepts as:

> Chinese language - embodies culture and philosophy; includes over 40,000 symbolic and meaning-based characters; four tones in spoken Mandarin and nine tones in spoken Cantonese; conceptual versus analytical thinking patterns; and Confucianism as the dominant philosophy which includes a rigid social order of ranked social relationships (i.e., emperor and masses, father and son).
>
> The law of yin and yang - most often described as the two fundamental forces that exist in the universe that are harmonious and opposite, good and bad; finding the balance between the two forces is necessary for relationships.
>
> Chinese connectedness - *"A Chinese person is never encouraged to think in an individualistic manner or attitude, and is never treated on a stand-alone basis. While those in the West may believe that 'we are all born equal', the Chinese believe that 'we are all born connected'."* (p. 17) Connectedness is reinforced by Confucian teachings of respect and obedience.
>
> Midstream living - balancing one's place within a group while conforming; maintaining a balanced place in the centre; being emotionally neutral; and
>
> 'Face' - An intangible concept incorporating reputation, social status, image, and role. Face is proposed as the most important concept in Chinese culture. Incorporates always doing the right thing and treating others correctly.

The five core concepts briefly outlined above, provide a basic foundation that gives insight into, among other things, how Chinese conceptualise health (balanced) and the importance of family (connectedness and respect). The concept of family and connectedness is so strong in

Chinese culture, that Ames (2001) states all relationships are based on the concept of the family with individuals outside of biological families referred to as brothers, sisters, mothers and fathers.

Reviewing collectivism and individualism provides a framework of cultural relevance around the issues of loneliness and health. Understanding individual and societal cultural differences and value orientations provides insight into how loneliness, health and successful ageing is conceptualised by Chinese and Anglo seniors, the participants in the studies reported in this thesis.

Health

The conceptualisation of health is complex and it is not the purpose of this thesis to provide a thorough review of the history of health and health concepts. The purpose of this thesis is to understand how Chinese and Anglo-Australian seniors perceive health and how such perceptions may influence and be related to loneliness. Therefore, the discussion of health that follows will be limited to conceptualising health as it impacts on Chinese and Anglo-Australians seniors. The term 'health' is defined, and then the literature around Western and Eastern concepts of health, self-reported health, health and SES, and health and neighbourhood are reviewed.

The World Health Organisation (1946) defines health as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".*
Health can be defined in many ways including: the absence of illness, achieving balance, adaptability, maintaining homeostasis, and being able to function pain free and without restrictions (Blaxter, 2007).

In a nationwide English study (Blaxter, 1990), answers to items such as, "what is it like when you are healthy?" and "describe a healthy person" elicited the following six categories of health: not being ill, vitality and physical fitness, good social relationships, being mobile and able to function well, the holistic concept of (psychological) well-being, and healthy living. According to Blaxter, for older people in general, good health is a relative concept and means being able to take care of daily activities, remaining self-sufficient regardless of advancing age, and having a positive state of mind.

Perceptions and ratings of physical / functional / mental health decline with age and subjective health perception are based on more than just physical health (Pinquart, 2001). Those who report more positive self-ratings of health tend to have a broader concept of health than only the biomedical concept (Idler, et al., 1999). This broader concept of good health includes family and friends (Barefoot, et al., 2005; Ostir, et al., 2002) where positive, supportive and equal relationships lead to better self-ratings of health. Health also incorporates perceptions about function and self-mastery.

> *"To understand health is to take account of people's own perspectives and their capacity to manage or control the challenges and changes in the environments surrounding them."* (Keleher & MacDougall, 2009, p. 6)

Western and Eastern Concepts of Health

Western and Eastern models of health differ considerably. The Western biomedical model of health is based on the separation of mind and body (Samson, 1999a) with disease an expression of deviation from health or normalcy. Principles of the biomedical model include: disease is caused by germs / bacteria / parasites; disease is universally defined and experienced; disease is disturbance of homeostasis; and medicine is objective and neutral (Blaxter, 2007). The biomedical model of health generally focuses on the effects of disease, however rather than good health. The long history of the separation of mind and body can be traced back to the ancient Greeks, with Descartes during the 1600's, advancing the concept that the mind and the body were different realms and independent through his philosophy of dualism (Johnston, 2006). Descartes focuses on reason and logic, and declared that nature was completed understood through his logical approach (Le Van Baumer, 1978). This logical and mechanistic philosophical approach to mind and body is supported throughout the biological model of health.

The Eastern (or for the purposes of this thesis, the Chinese) model of health might be regarded as more focused on maintaining, or if necessary restoring balance, the interdependence of mind and body, the body as part of the whole environment, and the patient's responsibility for good health (Samson, 1999b). The Chinese model of health focuses on a balanced self, living a balanced life. If health is characterised by the idea of homeostasis from a western biomedical perspective, it is characterised as harmonious and flowing from a Chinese medicine perspective (Herfel, Rodrigues, & Gao, 2007). The flow of

energy often referred to in Chinese medicine is dynamic, ever changing, and exists in relation to the environment (Herfel, et al., 2007). Chinese medical concepts generally reflect optimising harmony, the restoration of balance and the proper conduct of one's life (Lin, 1980). Harmony and the proper conduct of one's life have been credited to Confucianism's roles for social order (Kirmayer & Young, 1998). These distinct cultural perspectives articulate the profound difference in how Chinese and Western medicine define disease and health. While Western medicine concerns itself with maintaining a state of good bio-medical health by not deviating from physiological balance, Chinese medicine concerns itself with change and *"achieving dynamic harmony"* (Herfel, et al., 2007, p. 74).

Balance, harmony and interdependence of body and mind is also reflected in the concept of 'somatisation'. Somatisation refers to presenting psychological or psychiatric conditions or states as physical symptoms with no identifiable physical illness (Isaac, Janca, & Orley, 1996; Kirmayer & Young, 1998) and has a long history in psychiatric literature. The concept originated in Greek science and presents medicine from a functional view, with the expected separation between mind and body (Fabrega, 1990). The use of the term somatisation in this thesis is not within the psychiatric or psychological sense of illness however. Somatisation, for the purposes of this thesis, refers to describing feelings as physical complaints. An example of this could be a lonely person describing him / herself not as lonely, but as being low on energy, feeling 'poorly', or having tightness in their head. A symptom picture that reflects different levels of harmony (as opposed to disease) does not incorporate a concept of somatisation (which is Western), because the idea of psychological against physical illness is non-existent (Fabrega, 1990). Traditionally, Chinese medicine does not differentiate between physical and mental functions (Lin, 1980), and psychology never developed as a separate aspect of Chinese medicine (Kirmayer & Young, 1998). Traditionally, Chinese culture supports the concept of behaving properly and does not approve of expressing emotional distress - it was more socially acceptable to describe a state of mind via bodily complaints using physical symptoms (Parker, Gladstone, & Chee, 2001).

Somatacisation of mental health is not uncommon in Asian and South Asian cultures because these cultures hold holistic views of health and illness; the mind and body are considered an inseparable whole (Lai & Surwood, 2009), and because less stigma is associated with physical expression of illness (Weiss, Jadhav, Raguram, Vounatsou, & Littlewood, 2001). Loss of face is also a particularly Asian cultural dimension of stigma (Yang, 2007; Yang, et

al., 2007). Yang and colleagues argue for the need to view stigma through a multifaceted social, cultural lens. Through this lens, the Chinese experience is viewed as influenced by the rules of ordered life (Confucianism), face, respect and harmony. With the emphasis on family connections and harmony, loneliness would be stigmatised due to the implication that family connections have been lost. This could also be seen as a loss of respect from others and loss of face. When there is disruption to these aspects of culture, stigma can manifest.

Although it is accepted in the literature that somatisation predominates in non-Western societies and ethnic groups in Western societies, there is a growing evidence base that somatisation is a universal phenomenon (Isaac, et al., 1996; Kleinman, 1982). While the biomedical separation of mind and body in Western medicine results in mental and physical health categories (Fabrega, 1990), this is not the case in Chinese medicine. Chinese seniors could describe feelings of loneliness (or any emotional distress) in general physical terms such as aches and pains because these are acceptable symptoms to discuss with friends, family and general practitioners.

Chinese patients with somatised depression feel and believe they have a physical illness (Kleinman & Lin, 1981) and seek treatment from general practitioners for a physical condition. It is likely that describing depression as physical illness to general practitioners may result in a diagnosis of a physical health problem, not depression. There is a relationship between collectivist cultures, low self-esteem and subjective well-being, with East Asian countries demonstrating less satisfaction with their health as well (Triandis, 1995). This may also contribute to higher self-reported poorer health. Although loneliness is not perceived as a mental illness in Western culture, it may be perceived as a mental illness in Chinese cultures and as such be stigmatised (Ju-Kang, 1985). Loneliness may be associated with not living a proper life, loss of face, shame and weakness of character.

Psychological well-being may be conceived differently by Eastern seniors than Western seniors because of the Eastern orientation which emphasises harmonious, interdependent relationship to others. For example, research with Thai elders distinguished five elements of well-being: harmony, interdependence, acceptance, respect and enjoyment and these demonstrated particular emphasis on the social inter-relatedness of well-being (Ingersoll-Dayton, et al., 2001). From a Western perspective, the five elements of well-being do not appear to include physical health which many Eastern seniors might conclude is essential to well-being.

The differences in conceptualisations of health, relationships and well-being flow from the contextual environment and are, as yet, relatively poorly understood. Little research has thus far been undertaken in relation to Chinese seniors living in Australia (Tsang, et al., 2004). Much of the written information about ethnic and / or cultural groups in Australia is stereotyped, and immigrants who hold on to their cultural beliefs and traditions, are often perceived as a 'problem' by Australian service providers (Allotey, Manderson, & Reidpath, 2002). In Australia the need to acknowledge and recognise the diversity of people from Chinese backgrounds has been noted (Social Policy Research Centre, 2009), but research is lagging. In particular, research about Chinese conceptualisations of health undertaken by Chinese researchers would contribute to understanding the differences between Chinese and Anglo-Australian perspectives within cultural contexts. The differences in conceptualisations of health between Chinese seniors living in Australia and Anglo-Australian seniors living in Australia are yet to be explored fully. Without these explorations, understanding how different cultures conceptualise health is not well understood and leads to assumptions about cultural influences. This research seeks to understand the differences in conceptualisations of health between Chinese seniors living in Australia and Anglo-Australian seniors living in Australia, the participants in the studies reported in this thesis.

Self-Reported Health

Self-reported health is a widely used measure, representing a well accepted concept, has been shown to predict mortality, and is inclusive enough to cover many aspects of health including dynamic evaluations of past, current and future health (Idler & Benyamini, 1997; Menec, et al., 2007). In a comparison of self-reported health in seven Australian cohort studies comprising 79,653 participants, low education and increasing age were associated with poorer self-ratings of health (Anstey et al., 2007). Anstey and colleagues also noted that self-ratings appeared to be based on a broad bio-psycho-social concept of health.

What constitutes good self-reported health varies among groups and between individuals from different ethnic backgrounds. Sixty-five per cent of elderly African Americans living in the U. S. rated their health as good or better (Idler, et al., 1999); 45.3% of Chinese seniors living in China rated their health as good to excellent (Mjelde-Mossey, Chin, Lubben, & Lou, 2009); and 60.6% of Chinese seniors living in Canada described their health as good or excellent compared to 73% of non-Chinese Canadian seniors (Chappell & Lai, 1998).

In Japan, self-reported health declines slightly with age and then ratings improve after 85 years of age (Liang, Shaw, Krause, Bennett, & et al, 2005). The relationship between self-reported health and chronic conditions has been found to lessen in later life while the relationship between self-reported health and mental well-being has been found to increase in later life (Schnittker, 2005). Older people tend to assess their general health in terms of mental as much as physical health (Schnittker, 2005). Advancing age and less education are also associated with poorer self-ratings of health (Sargent-Cox, et al., 2008).

Yu and colleagues (1997) found that Chinese seniors living in China perceived good health was related to older age, less disease, more respect from family members, harmonious neighbourhood relationships and spending less money on rent. Family relations and living according to traditional ways of aging were significantly associated with self-reported health in Chinese Canadian seniors as well (Mjelde-Mossey, et al., 2009). French speaking Canadians over 65 years of age reported high income, higher education and extensive networks (but not children) were associated with good health (Zunzunegui et al., 2004). For Spanish seniors, emotional support from children was related to good health (Zunzunegui, Beland, & Otero, 2001). Chinese seniors living in Melbourne reported greater well-being when they: were healthy, independent and financially secure; had a meaningful role; had strong support and ties to their family and the ethnic community; had low expectations; did not feel worried; and felt loved and respected by their family (Tsang, et al., 2004).

Lam (1994) found Chinese seniors living in Canada reported extreme satisfaction with their health, yet he also noted a sense of helplessness and neglect, and questioned whether admitting illness for these Chinese seniors was admitting a sense of uselessness and / or shame. Lam also found that the concept of 'acceptance' in old age was common and pervaded most of the discussions with Chinese seniors. Chinese senior's willingness to identify poor health and / or loneliness may also be influenced by the concept of face. Hu (1944) described two sets of criteria for face - *"prestige as a reputation achieved through getting on in life, through success and ostentation accumulated by means of personal effort or clever maneuvering"*, and *"prestige from respect of the group for a man with a good moral reputation"* (p. 45).

Older Canadians of Eastern European descent rated their health significantly poorer than older Canadians of British / Canadian descent, even after controlling for education and income (Menec, et al., 2007). Cultural factors influence self-reported health, length of stay in

a country does not seem to change self-reported health (ethnic differences do not diminish over time), and it is unclear what aspects of health different people focus on when answering the self-reported health question (Menec, et al., 2007). Chinese seniors living in Shanghai report worse health than Chinese seniors living in Canada, who report worse health than non-Chinese Canadian seniors (Chappell, 2003). It is not clear why these results were found, but they appear culture bound.

There is concern whether a single item measurement about health can produce accurate results across cultures (Chandola & Jenkinson, 2000). It may be that by not acknowledging the essential differences in Western and Chinese concepts of health, commonly used health surveys require Chinese seniors to make a shift in their perceptions of health from a familiar traditional Chinese perspective to a less familiar western perspective. For example, when comparing drugs prescribed by doctors in Hong Kong to those drugs prescribed by Australian doctors, Chinese seniors did not consider the Australian way of providing very few drugs satisfactory as they felt taking drugs would cure an illness (Quine, 1999). Chinese seniors also felt traditional remedies were more effective than modern medicine and expected treatments (drugs) to be tailor made because each case is individual (Herfel, et al., 2007). The perception is that traditional remedies enhance health because health is a fluid state and the focus is on balance. Yet, Chandola and Jenkinson (2000) found that ethnicity per se had a limited effect on self-ratings of health and the results of a single item measure were valid. They also found that ethnic minority groups reported poorer self-reported health than 'whites'. It is unclear how a single item measure about health can be considered valid across cultures when some cultural groups report poorer health than other groups using the same scale. The key to unravelling this contradiction is in understanding the cultural conceptualisation(s) of health.

Pinquart (2001) has argued that subjective (self-reported) health and objective (based on actual conditions) health are distinct dimensions of health and should be measured together to give a better picture of an individual's health. When Smith and Goldman (2011) compared the ratings of overall health provided by Taiwanese individuals, their interviewer and their physician, discrepancies in ratings were found. The discrepancies were associated with the different weight given to functional limitations, psychological well-being, and clinical measures. Smith and Goldman concluded that external assessments of health provided information that was complementary to the self-assessed health ratings.

Self-reported health is a widely used measure and well accepted concept, yet what constitutes good self-reported health varies among groups and between individuals. Different ethnic backgrounds add another layer to the concept. There is disagreement about whether ethnicity has an effect on self-reported health, and whether a single item question is valid across cultures. Without in-depth lay perceptions about what health means for people from many different cultures, self-reported health ratings may not have much meaning for researchers. Confounding the concept with clinical observations or external assessments of health may contribute little to understanding how individuals self-report health.

Health and SES

The relationship between health and SES is well documented. However, there is debate about whether the relationship is to individual characteristics (i.e., age, education, gender, income, marital status), broader characteristics (i.e., neighbourhood wealth, number of health promoting services available in particular areas, social benefits and services, housing), or whether the relationship is dependent on both individual and broader neighbourhood characteristics. Better health is associated with: meeting more often with friends and family, perceiving present income as acceptable for living, having a higher occupational status, and higher levels of education (Olsen & Dahl, 2007). Age, economic status, social class, household tenure, and high levels of trust have also been found to be significantly related to health (Poortinga, 2006). The relationship between health, age and SES has been found to exist at all SES levels, even higher SES levels (House, et al., 1994). Wealthy people are also more likely to remain healthy (that is, less likely to experience a transition from good to poor health) (Cai, 2008). Income inequality has also been associated with poorer health independent of household income (Kennedy, Kawachi, Glass, & Prothrow-Stith, 1998). Regardless of the conflicting research outcomes, improving the socioeconomic position of disadvantaged groups would reduce risk factors for poor health (House, 2002).

The accumulative effects of life long advantage or disadvantage have been demonstrated in a number of studies. The relationship between SES and health continues into old age and is relevant throughout the social gradient (Berkman & Gurland, 1998; Blaxter, 2007; Yao & Robert, 2008). Individual SES characteristics such as low household income have been associated with poor physical and psychological health (Arendt, 2005; McLeod, Lavis, Mustard, & Stoddart, 2003; Olsen & Dahl, 2007) and is detrimental to seniors' health even when living in a high status neighbourhood. Yet, Menec and colleagues (2010) found many

health conditions were related to neighbourhood income inequalities, the relationship was in the form of an income gradient, and inequalities persisted into old age. Additionally, the differences in access to educational opportunities during youth are evident in the widening health disparity in seniors (Walsemann, Geronimus, & Gee, 2008). SES and health inequalities have been found for every age group, but a substantive part persists into old age (Huisman, et al., 2003) and very old age (Breeze, Sloggett, & Fletcher, 1999; Dahl & Birkelund, 1997; Liao, McGee, Kaufman, Cao, & Cooper, 1999; Rahkonen & Takala, 1998). These results were explained as partly due to the life time effects of SES differences, as well as to SES differences in older age (Huisman, et al., 2003). Phelan and colleagues (2004) found that SES (family income and educational attainment) was related to mortality, but the socio-economic inequalities in mortality diminished with age and disappeared once individuals were in their 80s. They argued the association between SES and good health was due to people of high SES using their resources purposely to benefit their health. As a person ages, health is significantly affected by SES (education and income) with high SES groups not experiencing poor health until very late in life, while low SES groups experience poor health in middle and early old age (House, et al., 1994). House suggested that this was due to lower SES groups having greater exposure to various biological, psychological and social risk factors such as risky health behaviours, lack of social relationships and supports, stress, and lack of mastery or control. The effects of these risk factors were cumulative, increasing with age.

When investigating health and SES in Chinese seniors, Beydoun and Popkin (2005) found wide socio-economic inconsistencies in the functional health of Chinese seniors living in China, and these were almost exclusively due to education. Education was found to be negatively associated with physical health and psychological distress (Neupert, Almeida, & Charles, 2007). Psychological well-being was associated with higher education in Chinese seniors regardless of age or educational attainment (Ross & Zhang, 2008). Chinese seniors living in Beijing who were illiterate rated themselves lower on health and well-being than all other groups (Yu & Wang, 1993). Research with Chinese seniors living in Canada identified that there was a tendency to live with their children (Chappell & Kusch, 2007), and Chappell questioned whether stronger social networks in ethnic groups such as the Chinese might be based on need due to economic disadvantage.

The relationship between SES and health appears weaker for other Asian seniors. When age related character changes were examined in Japanese elders, physical and mental health were found to be significantly related to self-directedness (Yu, Chamorro-Premuzic, & Tani, 2008), with personality perceived as a stronger predictor of health than demographic variables. For Singaporean seniors, associations between SES (education, home ownership, income, perception of adequacy of income, and ownership of personal assets) and health status were not as strong or as consistent as those reported in Western settings. Yet, adequacy of income had the strongest effect on health, and the health inequalities associated with SES persisted but declined slightly with old age in Singapore (Jatrana & Chan, 2007). It is interesting to note that the perception of adequate income determined how healthy these Singaporean seniors felt. Earlier in this chapter, individual perceptions of feeling lonely were reviewed and the perception of the adequacy of relationships was shown to determine how much loneliness individuals felt (Peplau & Perlman, 1982). The issue of perception is evident throughout the literature and leads one to question whether an individual's perception of loneliness, sense of mastery, health or income could be more important to health outcomes than the actual situation in which the individual finds him or herself.

Differences in the findings of SES and health research may be due to differences in the countries in which the studies are being carried out and to the different definitions of SES. Olsen and Dahl (2007) found that people from Eastern European countries reported the worst health and wealthier countries generally had better population health outcomes. An Australian longitudinal study found that in five countries, wealth affected life satisfaction more than income (Headey, Muffels, & Mark, 2008). SES inequalities tend to be fairly stable in European countries, are deeply rooted in the modern world, and persist over the life course (Kunst et al., 2005). In Canada, household income, not income inequity, was strongly associated with health status over time (McLeod, et al., 2003). In the U.S. where there is more income inequality and fewer general welfare policies and programs, poor health tends to be more strongly related to individual level SES. The lack of affordable health insurance in the U.S. may be a strong contributing factor to the relationship between SES, health and age. If preventative health conditions are not treated due to lack of health insurance, it follows that older age will be less healthy for those who can not afford to treat preventative health conditions.

Engaging in the debate about whether the relationship between health and SES is due to individual characteristics, broader characteristics or a combination of both, does not serve a purpose in this thesis. With better health relevant throughout the social gradient and the accumulative effects of life long advantage or disadvantage demonstrated, it is clear that SES and health are strongly related. Inequality, regardless of culture, is related to poorer health outcomes. While this thesis does not compare different SES groups, as detailed in Chapter One, the study is situated within the relatively advantaged local government area of Manningham. Manningham's SEIFA score is the seventh most advantaged of the 78 local government areas in Victoria, with some areas of less advantage noticeable. Manningham appears to support the association between better population health outcomes and higher SES.

Health and Neighbourhood

"Members of the public increasingly value their health; consider the environment to be an important influence on health; and want to live, work, and play in healthy environments" (Frumkin, 2003) (p.1452). It is no longer contested that there is a relationship between health and neighbourhood (or place). 'Neighbourhood' itself can be defined in a number of ways, however. Factors such as size, geographical boundaries and resident perceptions need to be considered when defining a neighbourhood (Diez-Roux, 2003). Yen and colleagues (2009) note that objective and perceived measures of neighbourhood needed to be included together in studies, and that older adults may not perceive their neighbourhood as the administrative geographical area identified in studies. Neighbourhoods exist within larger communities, and the impacts of many influences (i.e., country, state, municipality, suburb, workplace, school) need to be considered. Neighbourhoods also might be defined as communities of interest, and these communities of interest are often much broader than geographical neighbourhoods (Macintyre, et al., 2002) or census areas (Wen, et al., 2006). Because much of the research on neighbourhood is presented using terms such as SES, the distinction between 'health and SES' and 'health and neighbourhood' becomes less clear. Although this section of the thesis is titled health and neighbourhood, there is overlap with the previous section, health and SES.

Regardless of how neighbourhoods are defined, a relationship to health is found. Whether the relationship between health and neighbourhood is due to individual socioeconomic characteristics (who you are) or neighbourhood level characteristics (where you live) is less clear. The individual characteristics or neighbourhood characteristics are often referred to

using the terms ‘compositional’ or ‘contextual’ effects (Macintyre & Ellaway, 2003). Macintyre and Ellaway refer to the distinction between compositional and contextual effects as artificial due to the complex interrelationships between people and place. They argue that both neighbourhood and individuals are important to understand how neighbourhoods and health interact, and that both the social environment and physical features are important when examining contextual influences on health.

Macintyre and colleagues (Macintyre, et al., 2002) propose five aspects of local areas which may have impacts on health. These are: physical features shared by all (i.e., air, water, climate); home / work / play environments; public and private services (i.e., policing, education, welfare services); socio-cultural aspects (i.e., cultural history of the area, values, crime levels); and area reputation (perception of area by residents and others). Not all of these neighbourhood aspects are taken into consideration in research conducted on neighbourhood and health. This leads to confusion over which neighbourhood aspects are being included in research and makes it difficult to compare research about the same neighbourhood aspects. When examining what impact neighbourhood has on health, ideally all aspects are considered. However, this may be unrealistic as it would be difficult to include all five aspects in every individual study. All such aspects are included in Dahlgren and Whitehead’s model (Figure 4), yet rarely cited in this area of research.

Macintyre and colleagues (2002) argue that a framework of universal human needs should be used to understand how health is influenced by place instead of concentrating on an ‘either-or’ approach. Arguing that it is not a context against composition situation, Cummins and colleagues (2007) note that both are important to understand the impact on health. They promote a ‘relational view’ of places, which concentrates on the *“processes and interactions occurring between people and places and over time which may be important for health”* (p. 1828). They emphasise the need to combine the views of residents with the specific measures to understand the relationship of health and neighbourhood, and argue against traditional, special descriptors of place. Wen and colleagues (2006) contend that the perceived quality of the neighbourhood (in particular, perceived physical environment rather than social environment) impacts on self-reported health and should be considered a separate construct to objective neighbourhood characteristics. In middle-aged and older adults, the health effect of neighbourhood SES (income and education) is negligible after controlling for individual SES (Wen, et al., 2006), and perceptions about neighbourhood quality

significantly impact on self-reported health. Perceived neighbourhood quality is important to self-reported health even after all other factors have been controlled for. Low SES individuals have been found to rate their area as less attractive and report less support to walk locally than high SES individuals even though the low SES individuals had equivalent access to recreational facilities as did high SES individuals (Giles-Corti & Donovan, 2002). Perceptions about neighbourhood are often bound up in concepts such as trust and social cohesion. Macintyre and colleagues (2002) have commented on how certain narrow psychosocial aspects of contextual variations have become important. These narrow aspects include *"social cohesion, social capital, and perceived position in social or economic hierarchies"* (p. 130), while other aspects of contextual effects such as religious affiliation, shared histories, ethnicity, and age are ignored.

Neighbourhoods with more social interaction and connection have been shown to be better for health (House, et al., 1988). Seniors 70 years and older living in affluent neighbourhoods have been found to experience health related benefits and live longer than those 70 years and older living in poorer neighbourhoods, regardless of self-assessed health (Wight et al., 2008). Seniors living in poor neighbourhoods had higher levels of depression than those living in rich neighbourhoods (Kubzansky et al., 2005) and higher levels of depression were found in deprived neighbourhoods that also had residential instability (Matheson et al., 2006). Neighbourhood social disorder is harmful to health, and higher SES neighbourhoods have beneficial effects on mental health (Kim, 2008). Area characteristics may affect the health of seniors more than others because seniors rely more heavily on their local services, social interactions are more local, and they spend more time in their local area (Breeze et al., 2005).

Examining the interplay of neighbourhood, poverty, affluence, and self-reported health (after controlling for individual SES factors), neighbourhood affluence was the most significant predictor of positive self-reported health (Wen, et al., 2003). The non-association between income inequality and health was surprising and suggested that income inequality may be evident in a larger area such as a state, but may not be evident in a smaller area such as a neighbourhood (Wen, et al., 2003).

Neighbourhood effects influenced psychological states and behaviours with poorer health due to the long-term cumulative effects of the neighbourhood (Ellen, Mijanovich, & Dillman, 2001). However, Ellen and colleagues went on to note that the relationship was underexplored, and it was necessary and important to disentangle neighbourhood and

individual characteristics. More careful analysis was required to understand which aspects of neighbourhood mattered more to health and which types of people were most affected by these neighbourhood aspects.

Dilapidated living environments negatively affect health due to the presence of pollution / toxins, excessive noise, overcrowding, run down infrastructure, poor housing, inadequate sanitation, and the stress of living in such an environment (Krause, 1996). Crime is usually high and trust is low in dilapidated neighbourhoods (Krause, 1993). High crime and low trust resulted in few friendship ties for seniors. Krause found that seniors living in dilapidated neighbourhoods experienced worse health than those seniors living in good neighbourhoods even after economic and social factors had been controlled for. Neighbourhoods with excessive noise, inadequate lighting and heavy traffic contributed to greater risk of health deterioration in seniors than better neighbourhoods (Balfour & Kaplan, 2002). And, past exposure to area deprivation influenced health status (Diez-Roux, 2005).

In a review of 33 articles about health and neighbourhood, Yen and colleagues (2009) concluded that only modest evidence was found that the health of seniors was significantly influenced by neighbourhood. However, while they commented that many of the studies were limited in their ability to identify exactly what the associations were between health and neighbourhood for seniors, neighbourhood SES was the strongest predictor of health.

Regardless of one's place on the social gradient and the impact on health, neighbourhood has its own effect (Glass & Balfour, 2003). Yet Moorer and Suurmeijer (2001) found only very small neighbourhood effects on loneliness or size of social network in seniors, and felt this was because the older person already had a mature personality, and was less influenced by the neighbourhood. While neighbourhood may play a more important part in influencing health than individual characteristics, this has not been clearly demonstrated. A systematic review of 25 U. S. epidemiological studies focussing on the effects of neighbourhood on health, found only a modest neighbourhood effect on health (Pickett & Pearl, 2001).

While research findings on the effects of neighbourhood on health are varied, resorting to classifying neighbourhoods is to be avoided. *"A major challenge for research on neighbourhoods and health is to move beyond classifying neighbourhoods solely on their basis of poverty and deprivation"* (Glass & Balfour, 2003). A balanced review of the neighbourhood including demographics, poverty, deprivation, affluence and equity is

required when looking for an association between the health of seniors and their living circumstances. The balanced review should also include residents' perceptions of the neighbourhood, and how they believe the neighbourhood influences their health.

Neighbourhood can be defined in a number of different ways which can lead to confusion unless clear neighbourhood aspects are explained. Neighbourhoods can be communities of interest and always exist within larger geographical communities. An association between neighbourhoods and health has been found, and the perceptions of people about the place in which they live needs to be explored further to better understand how these perceptions may influence health. Manningham is an area of open green spaces, low density housing, well maintained infrastructure, adequate sanitation, low crime rates, light traffic and many parks and recreation areas. This study seeks to understand whether this advantaged 'neighbourhood' is associated with loneliness and good health, and what lay perceptions are about the area.

Conclusion

The significant concepts used throughout this thesis are complex and dense in meanings. The literature about loneliness has been reviewed and has brought out the many definitions of loneliness. Yet loneliness, with its inherent fluidity, defies definition. Loneliness can be understood as a natural part of being human or not, and discourses on loneliness range from existential to practical. The definition of loneliness is always used contextually - loneliness as searching for meaning, loneliness as a problem, loneliness as lack of intimacy, loneliness as lack of connection, and so forth. Perceptions of loneliness are difficult to understand; each individual experiences loneliness through his or her own perceptual lens. Perceptions of loneliness are influenced by life experiences, society, culture, sense of mastery, health, and much more. This complexity makes the measuring of loneliness extraordinarily difficult. Yet, the concept of loneliness has been compartmentalised and questionnaires have been developed to measure how lonely an individual feels. The measurement of loneliness ranks an individual on a scale with numerical cut-off points that determine exactly where loneliness begins. It is inconceivable that such a complex concept could be defined and measured in this way. The drive to measure loneliness is interesting, yet the reason for wishing to quantify this internal and undefined state is unclear.

This chapter reviewed the research about loneliness in relation to health and ageing and found many definitions, various influencing factors, and differences in prevalence and measures. This literature review has attempted to consolidate the diverse findings around these topics. There are a number of definitions of loneliness with researchers arguing about whether loneliness is uni-dimensional or multi-dimensional, and whether it is a normal part of ageing as well as not. After reviewing these definitions, for the purpose of this thesis, Peplau and Perlman's (1982) description of loneliness as *the unpleasant experience based on the perception that relationships are not satisfying regardless of the size / adequacy of social relationships*, is used to guide understanding in this thesis, incorporating social and emotional loneliness rather than considering them separately. While this definition does not describe loneliness in all of its depth and complexity, it is the definition that fits most comfortably with the research study.

There are discrepancies in the literature about whether loneliness is increasing or decreasing in seniors, and what factors influence loneliness. However, research more often than not finds that seniors reporting the highest sense of well-being, decreased loneliness, and good health: receive and give high levels of support from both friends and family (de Jong Gierveld & Dykstra, 2008; Dupertuis, et al., 2001), adjust well to being alone (Cornwell & Waite, 2009), perceive themselves to be socially connected (Ashida & Heaney, 2008; Taylor & Lynch, 2004), have higher than average household incomes and higher than average educational levels (Beydoun & Popkin, 2005; Hawkley, et al., 2008; Lee & Ishii-Kuntz, 1987; Theeke, 2009), perceive themselves to possess high levels of mastery (Noh & Avison, 1996; Pudrovska, et al., 2005), and live in relatively advantaged neighbourhoods (Kim, 2008; Wight, et al., 2008). The highest sense of well-being, decreased loneliness, and good health are reported by those seniors with healthier individual lifestyles, stronger social and community networks, higher education and higher income than those seniors without these influences.

Loneliness crosses cultures and boundaries with Chinese seniors reporting increased loneliness when relationships are perceived as poor, no children are present and / or children are not filial (Chou & Chi, 2004; Hsiao, Klimidis, Minas, et al., 2006; Liu & Guo, 2007; Yang & Victor, 2008). Family ties, individualistic against collectivist orientations and social activities contribute to culturally and linguistically diverse seniors' perceptions of loneliness.

Chinese cultures appear to situate loneliness within Social and Community Networks, rather than within Individual Lifestyle Factors.

Whether stigma is associated with loneliness is not clear. Researchers assume the lack of acknowledgement and low reporting of loneliness is due to shame and the social undesirability of admitting to feeling lonely (McInnis & White, 2001; Sadler, 1978; Victor, et al., 2002). This may be the case, and it may also be due to poor conceptualisations of loneliness and inadequate measures.

It is clear that seniors' perceptions of loneliness, ageing, health or sense of mastery influence research findings. When an individual perceives that he or she is healthy, involved in meaningful activities, part of meaningful relationships or living in a high quality neighbourhood - the objectively measured situation appears less important. Successful ageing comprises avoiding disease and disability, engagement with life, and high cognitive and physical function (Rowe & Kahn, 1987). Perceived self-assessed good health, perceived engagement with some meaningful aspect(s) of life, and perceived high cognitive and physical function could well be the basis of successful ageing for many seniors. Health, ageing, and neighbourhood perceptions about what influences successful ageing are much more important than previously acknowledged. The current emphasis on lay perceptions of successful ageing supports these findings, that when an individual perceives him / herself as ageing successfully, the objectively measured situation appears less important.

There is little evidence that perceptions of ageing, health, loneliness and neighbourhoods have been explored cross-culturally. Whether similar perceptions about these concepts exist between two distinct groups of seniors is not evident from the review undertaken. Chapter Four presents the mixed methods research design for the research that examines whether relationships exist between health and loneliness, and understanding various perspectives about health and loneliness in two distinct cultural groups of seniors. The overarching quantitative hypotheses and qualitative questions are presented. The quantitative and qualitative phases of the research are described in detail.

Chapter Four - Research Design

Introduction

The previous chapter reviewed literature that explores loneliness and included concepts of health, collectivism and individualism, socio-economic status, neighbourhood, stigma, and sense of mastery. The review established that while researchers have provided many and varied explanations, definitions and descriptions of loneliness, there is difficulty in conceptualising loneliness, which affects how loneliness is measured. The various means of measuring loneliness in populations indicates prevalence of loneliness in seniors ranging from 7% to 40%. Whether stigma is associated with loneliness is not clear. How culture influences perceptions of loneliness has not been well researched, yet there is some acknowledgement that individualistic cultures place less emphasis on family relationships than collectivistic cultures and this may account for differences in cultural perceptions of loneliness (Gallo, 2008; Ho & Chiu, 1994; Triandis, 1995). The review also established that the objective measures which include variables such as loneliness, health, neighbourhood quality and sense of mastery, are at odds with the subjective experiences of seniors (Rudinger & Thomae, 1990). The issues raised by the literature review suggest many questions remain unanswered, such as how culture influences perceptions about loneliness and health, whether tools can measure loneliness accurately, whether it is important to measure loneliness, why seniors feel lonely, and why objective health does not predict perceptions of self-reported health. The range of issues and questions that need to be addressed cannot be achieved through one line of inquiry, and therefore mixed methods are indicated.

This Chapter presents the mixed methods research design undertaken for this study. The research is founded on the problem that there is little information about loneliness and self-reported health in relatively advantaged Chinese and Anglo-Australian seniors living in Australia. The aim of the research is to determine whether there is a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors and to explore the influences of social determinants of health on the experiences and perceptions of the two groups.

This mixed methods research measures loneliness and health and then explores perceptions of loneliness and health to understand whether Anglo-Australian and Chinese seniors express a difference between measures and their perceptions of feeling lonely and healthy. Understanding how this group of Anglo-Australian and Chinese seniors perceive their loneliness and health will contribute to the body of knowledge around how the perception of successful ageing influences a healthy and happy life for seniors.

The overarching research question is - How do particular social determinants of health (cultural, environmental, social and individual lifestyle factors) influence loneliness and self-reported health in relatively advantaged Chinese and Anglo-Australian seniors? The question has quantitative hypotheses and qualitative questions derived from testing the quantitative hypotheses:

Quantitative hypotheses:

1. There is a relationship between health and loneliness in Chinese and Anglo-Australian seniors,

2. Chinese seniors will experience higher levels of loneliness than Anglo-Australian seniors,

3. Chinese seniors will self-report poorer health compared to Anglo-Australian seniors.

Qualitative questions:

1 - What can we learn from older Chinese and Anglo-Australian seniors about loneliness by exploring their perspectives on health?

2 – How does 'place' (in this case, a neighbourhood that experiences relatively good population health outcomes) appear to influence the health of Chinese and Anglo-Australian seniors?

Ethics Clearance

The Human Ethics Certificate of Approval was received from the Standing Committee on Ethics in Research Involving Humans (SCERH) Research Office on 29 January 2008. The project – Loneliness and Health Status of Manningham Seniors is approved to 29 January 2013. The certificate is at Appendix A.

An amended Human Ethics Certificate of Approval was received from the Standing Committee on Ethics in Research Involving Humans (SCERH) Research Office on 21 December 2009. This approval covered the Chinese focus groups which were not in the original submission. The certificate is at Appendix J.

Mixed Methods Research

Following Newman and colleagues' (2003) typology of research purposes, the purpose of this research is complex and required mixed methodology to answer the multiple research questions. It became clear by following Newman and colleagues' systematic analysis of purpose, that one methodological approach could not cover the breadth of the research questions that flowed from the purpose of the research. A mixed methods approach was therefore indicated.

Mixed methods incorporates a mix of quantitative and qualitative procedures for collecting and analysing data within one study, the integration of that data after one or both phases, and provides more robust answers to (often) complex research questions (Creswell, Clark, Gutmann, & Hanson, 2003; Teddlie & Tashakkori, 2003). A mixed methods approach allows and encourages the exploration of complex social phenomena in diverse ways (Greene & Caracelli, 2003). Onwuegbuzie and Teddlie (2003) argue that mixed methods research is comprehensive, legitimate and more rigorous than using one method only, because of the benefits of combining quantitative and qualitative data analysis.

Research into human society has adopted two basic methodologies that have been used for many decades - quantitative and qualitative. These broad methodologies were seen as opposing research orientations – quantitative being objective or value neutral and qualitative being subjective or culture-bound (Tashakkori & Teddlie, 2003). During the 1970's some researchers began to see that combining both qualitative and quantitative methods could provide more robust results (Burns, 2000), as using one method alone could not answer some questions of interest to researchers.

Quantitative research, often described as the 'scientific method', uses structured observations to test hypotheses, and is generally replicable and regarded as objective (Gravetter & Forzano, 2003) in keeping with its epistemological origins in positivism. Quantitative methods are most primarily concerned with collecting and analysing numerical data (Teddlie

& Tashakkori, 2003). Qualitative research acknowledges the subjective view of human beings, in accordance with its constructivist epistemology, and can lead to uncovering deep levels of meanings by understanding experience from the participants' viewpoint (Burns, 2000). Qualitative methods assist in the discovery of multiple realities and meanings within each lived situation (Burns, 2000) and encourage the researcher to delve more deeply into the perceived world of the participants. Qualitative research emphasises narrative and descriptive thematic reports of the research undertaken. The combination of quantitative and qualitative methods into a field of mixed methodology has become formalised over the past 20 years, and known as the 'third methodological movement' (Tashakkori & Teddlie, 2003) with quantitative and qualitative methodologies being the first and second methodological movements.

A paradigm is *"a basic set of beliefs that guides actions"* (Guba, 1990). Thomas Kuhn (1996) popularised the term paradigm and described paradigms as past scientific achievements which provide researchers with a foundation for further research and which help contain the research through common, shared beliefs. While there are any number of research paradigms, those most influencing the field of mixed methods are positivism, post positivism, constructionism and pragmatism (Teddlie & Tashakkori, 2003).

Positivism, in its most basic form, adheres to the principles of cause and effect, or directly observing and measuring in order to achieve understanding of the natural universe (Trochim, 2006). The positivist paradigm is a worldview grounded in discovering an unfolding, objective truth using scientific observation, in pursuit of facts and laws, and generally adopts a deductive approach.

By the mid-1900's, the purely objective world view of positivism was challenged and the post positivist paradigm emerged. Post positivism rejected positivism in its then form and acknowledged that while remaining scientific and empirical, research is influenced by the questions asked, subjective values and theories used by the researcher (Teddlie & Tashakkori, 2003).

Within the post positivist paradigm are researchers who are considered 'constructivists', who adhere to the belief that the meaning of research is constructed by the researcher (Teddlie & Tashakkori, 2009) and is a social phenomenon (Trochim, 2006). Constructionists adhere to a

world view grounded in discovering the truth through human understanding, and generally adopt an inductive approach.

While both positivist and post positivist paradigms are empirically based, they were perceived as pure and contrasting, and followers of each paradigm saw the two as incompatible (Teddlie & Tashakkori, 2003). Howe (1988), committed to the compatibility of quantitative and qualitative methods, argued that the question was not whether the two were compatible, but how their compatibility could be achieved well. He stated that although the two methods may have originally grown out of incompatible paradigms, the differences had been blown out of proportion and using both methods cooperatively was the way of the future. He proposed that this cooperative method was an *"alternative, pragmatic view"* (p.10).

The pragmatic paradigm is not concerned with the purity of either quantitative or qualitative methods and is a view grounded in what will work the best to answer the research question(s) (Patton, 1988). It rejects the concept of a single scientific method (Maxcy, 2003), supports the combining (or mixing) of methods in research and accepts that the interpretation of results is value laden due to the researcher's orientation (Tashakkori & Teddlie, 2003). Mixed methods researchers are often primarily concerned with the research question they study and can be less concerned with philosophical underpinnings of their research (Tashakkori & Teddlie, 2003). This practical approach is encapsulated in the pragmatic paradigm.

The research paradigm underlying this mixed methods research is therefore pragmatic as it incorporates both quantitative and qualitative methods to address the research question, which focuses on describing and explaining how ethnicity and place influence health and loneliness of Anglo-Australian and Chinese Manningham seniors. Following the pragmatic orientation, this research is interested in the knowledge that is gained and how to apply that knowledge through the use of multiple methods and acceptance of difference.

The primary quantitative element of this research is deductive as the major thrust of the research is to identify and measure relationships (Morse, 2003) between ethnicity, place, loneliness and health in seniors. The second qualitative phase uses an inductive drive as it seeks to explain the results of the quantitative phase, and generate theories about ethnicity, place, loneliness and health in seniors. A general inductive approach is used to code the qualitative data. This approach is used to *"allow research findings to emerge from the*

frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies" (Thomas, 2006, p. 238). The qualitative analysis process is described fully later in this chapter.

Quantitative data collection and analysis provided the foundation of the research. Subsequent qualitative data collection provided more in-depth knowledge about the quantitative results. Accordingly, a sequential mixed model design was chosen as the method which best fits the design of the research question. The design is explained in detail in the following section.

Mixed Methods Sequential Explanatory Design

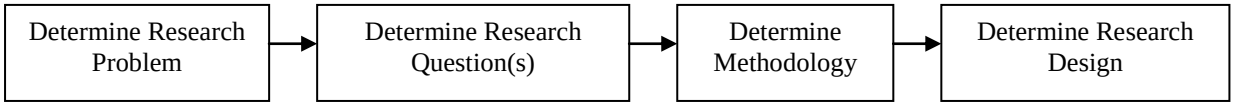
The aim of the research and the over-arching research question - How do particular social determinants of health (cultural, environmental, social and individual lifestyle factors) influence loneliness and self-reported health in relatively advantaged Chinese and Anglo-Australian seniors? - guided the design. The approach adopted is a mixed methods sequential explanatory design. This consists of collecting and analysing data in a quantitative phase followed by collecting and analysing data in a qualitative phase. The qualitative phase is informed by and explores the results of the quantitative phase and therefore, the foundation of the research design is the quantitative phase. It provides the basis for design of the qualitative phase. Because the research foundation is the quantitative phase, it is referred to as the dominant phase. Nonetheless, due to the nature of the research question (that is, requiring quantitative and qualitative investigation), both phases are given equal emphasis throughout the research.

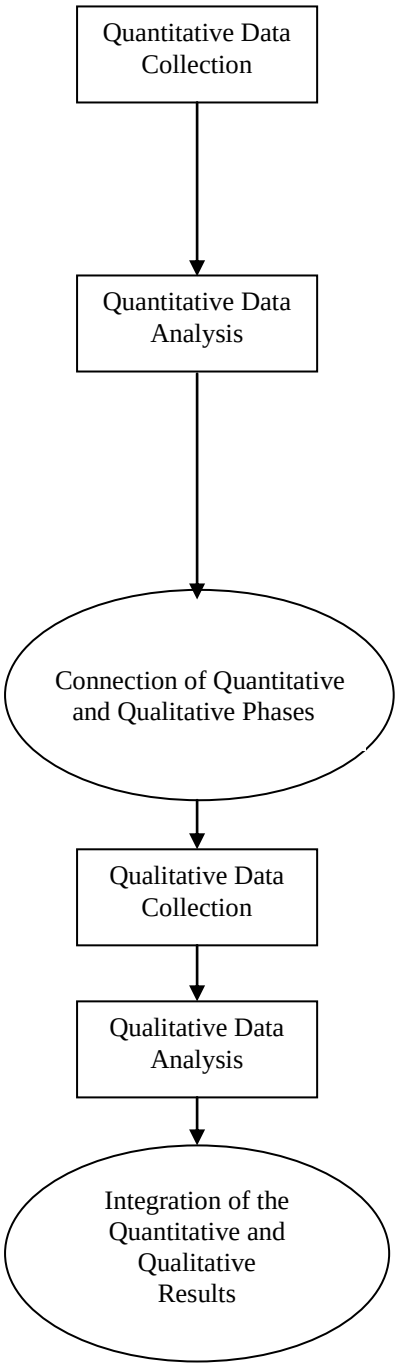
This chapter demonstrates that quantitative *and* qualitative knowledge are both necessary to answer the research question. Combining quantitative and qualitative approaches was essential to understand the research question and provided much richer data than using only one method of research. For the remainder of this Chapter, the terms quantitative and qualitative will be abbreviated in the style advocated by Morse (1991, 2003) and used throughout the mixed methods literature (Creswell, et al., 2003; Greene & Caracelli, 2003; Tashakkori & Teddlie, 2003). The quantitative method will be referred to as 'QUAN'. This term is capitalised because, as previously discussed, it is the dominant method within the mixed methods design. The qualitative method will be referred to as 'qual'. This term is not capitalised because, as also previously discussed, it is the less dominant methodology in this

study. Using the terms ‘dominant’ and ‘less dominant’ does not refer to rigour or importance, but rather to the order of conclusions made from results.

Figure 5 represents the procedures used in the mixed methods sequential explanatory design and demonstrates the content and steps of the design used in this research. The model developed by Ivankova and colleagues (2006) has been adapted for this research.

Figure 6 Visual Model for Mixed Methods Sequential Explanatory Design Procedures





	Procedure	Product
	• CATI Survey	• Numeric data
	• Data screening (univariate, multivariate) • Explore data using descriptive statistics and graphs • Conduct statistical analyses to explore relationships • Conduct statistical analyses to compare groups • SPSS quantitative software v.16	• Descriptive statistics, missing data, linearity, normality, correlations, frequencies • Descriptive statistics and graphs • Correlations, regressions • Non-parametric techniques, Chi-square t-tests, ANOVA, MANOVA
	• Purposefully selecting participants from each group based on loneliness scores • Developing interview questions	• Participants (n=25) • Interview guide
	• Individual semi-structured face-to-face interviews with 25 participants • Focus groups with -- participants	• Text data (interview transcripts) • Text data (focus group transcripts)
	• Coding and thematic analysis • Cross-thematic analysis • NVivo8 qualitative software	• Codes and themes • Similar and different themes and categories
	• Interpretation and explanation of the quantitative and qualitative results	• Discussion • Implications • Future research

In the first phase of the research, priority was given to Phase One – QUAN in which a Computer Assisted Telephone Interview (CATI) survey was conducted and the data were then analysed using SPSS descriptive statistics. The prevalence of and relationship between loneliness, social participation and health status were identified as well as factors that may have contributed to loneliness and health. The measures are described in detail under.

Measurements

Integration of the phases then took place in an intermediate stage. During this intermediate state the results of the CATI survey informed the semi-structured interview data collection. Due to the exploratory and explanatory purpose of Phase Two - qual, the interview participants were selected based on their Loneliness Score results from Phase One and the interview structure was based on investigating and understanding the relationships that emerged from data analysis. The participants were divided into two groups – those of Chinese ethnicity (referred to subsequently as 'Chinese') and those of Anglo-Australian ethnicity (referred to subsequently as 'Anglo-Australian'). Although some of the Chinese seniors spoke English (and some spoke English quite well), it was in all cases not their first language, and none were born in Australia. The Anglo-Australian seniors all spoke English as their first language and were all born in Australia. Their responses to the 10-item shortened UCLA Loneliness Scale questions were summed in order to select interview participants whose scores fell in the very high, high and mean ranges. A number of open-ended questions around three themes were developed to explore the factors that had statistically significant results (loneliness, general physical and mental health, social patterns). Four additional open-ended questions were developed to explore the factors that were considered important in explaining the quantitative results (socio-economic status, living arrangements, transport, and relocation). These factors have been identified as significant in numerous other studies (de Jong Gierveld, 1998; Ryan & Willits, 2007; Wenger & Burholt, 2003).

In Phase Two, qual data were collected through semi-structured face-to-face interviews to explore the QUAN results more fully. Phase Two built upon the QUAN phase by pursuing a stronger understanding of the outcomes and a better understanding of the research question. The semi-structured interviews explored social patterns, perceptions of loneliness and health and why the participants provided the information that they did in Phase One. Using a semi-

structured interview for all seniors, the researcher asked a number of major questions and followed up with probes or other questions to gain a more complete understanding of the loneliness and health experience of each senior. Eighteen interviews were completed with Anglo-Australian seniors and seven interviews were completed with Chinese seniors. The researcher was satisfied that theoretical saturation had been reached with the Anglo-Australian seniors as no new themes emerged by the eighteenth interview. There were concerns, however, about the lesser number of interviews conducted with Chinese seniors. Although there is little established consensus about the minimum number of interviews required to meet saturation found in the qualitative literature, Guest and colleagues (2006) conducted an extensive search of the literature and documented their interviewing processes in order to make recommendations about sample sizes for interviews. Guest and colleagues stated that *"saturation occurred within the first twelve interviews, although basic elements for meta-themes were present as early as six interviews"* (p. 59) and explained that when researching shared beliefs / perceptions, the more similar (homogeneous) the sample group members were, the earlier saturation was reached. With only seven interviews completed with Chinese seniors, the researcher was not convinced that saturation had been achieved even though thematic data generated from interviews with these seniors appeared quite consistent. Therefore, the Chinese Senior Citizens Club of Manningham was contacted and asked to assist with a focus group. The purpose of the focus group was to validate the results of the face-to-face interviews and to determine whether new information about the Chinese experience of loneliness and health would be uncovered.

The President of the Chinese Senior Citizens Club of Manningham was briefed about the research and asked to gather 10-12 Manningham residents over the age of 65 who identified as ethnic Chinese. The President identified 14 Chinese seniors and organised a pre-meeting at the Chinese Senior Citizens Club for the researcher to explain the research, review the explanatory statement and obtain consent for focus group participation. Three of the pre-meeting participants did not live in Manningham and excused themselves from the meeting. At the conclusion of the pre-meeting, potential participants were asked to return to a focus group to be held in a neighbouring hall, in a fortnight. A fortnight later, seven of the eleven eligible pre-meeting participants returned for the focus group. Neither the President of the Club or the researcher was able to locate the missing participants. Unfortunately, the neighbouring hall keeper did not arrive to unlock the hall and the focus group was rescheduled. In general, participants agreed to return in another fortnight for the focus group,

but they were fairly strong in expressing their disapproval of this postponement. The following fortnight, the hall keeper arrived and the focus group discussion proceeded with six of the original eleven eligible Chinese seniors.

Phase Two thus included the conduct and analysis of semi-structured interviews and focus groups. Themes describing loneliness and health were determined from the recorded interviews and were coded with the use of NVivo 8 qualitative software.

The final stage of triangulation of data included the interpretation and explanation of the QUAN and qual results. As previously noted, the research questions relied on quantitative and qualitative data to identify the prevalence of loneliness in the Manningham senior community, the relationship of loneliness to health and understand why seniors feel lonely. Triangulation of these data is presented in the discussion section, provides more in-depth answers to the research questions and develops a more fulsome picture of the research problem.

A limitation of this design is the length of time needed to complete both phases of data collection and analysis (Morse, 2003). In fact, it took one year to complete the data collection and analysis of Phase One and another year to complete the data collection and analysis of Phase Two.

This chapter now describes the mixed methods methodology, research design, data collection and analysis, and inference development used in this research. The mixed methods research used in this research was designed to gather evidence and explain the relationship between ethnicity, place, loneliness and self-reported health in seniors living in a relatively advantaged local government area with a predominance of Chinese and Anglo-Australian populations.

As discussed in Chapter One, Manningham has an ageing and diverse population with Chinese speaking residents the fastest growing CALD group (Australian Bureau of Statistics, 2008). Yet, there has been scant research conducted with this group. Due to the ageing of the population and the large representation of Chinese people in Manningham, Chinese speaking seniors and Anglo Australian seniors were identified as two groups that could provide interesting and useful comparative information.

A sample of seniors living in Manningham was needed to determine whether there were individuals who reported loneliness and whether loneliness was related to self-reported

health. Potentially, a prospective sample could have been sourced from a longitudinal study such as The Household, Income and Labour Dynamics in Australia (HILDA) survey (Melbourne Institute of Applied Economic and Social Research). However no identifiable information was found in the HILDA longitudinal study about seniors living in Manningham. Another prospective sample could potentially have been sourced from Victorian health surveys such as the Victorian Population Health Survey (VPHS) (Department of Human Services Victoria, 2008). However, at this point in time, data reported from the VPHS presents only aggregated data at a regional level, which incorporates multiple local government areas. Manningham data are incorporated into the Eastern Region of Victoria which comprises seven local government areas. The required Manningham specific data were not identifiable at the level required for this research and no other research on seniors living in Manningham had been identified. Therefore, this research was undertaken to contribute to the body of knowledge about two ethnically diverse groups of seniors, and the impacts of living in an affluent neighbourhood on their self-reported health and loneliness.

Phase One - Quantitative

Data Collection

The aim of this phase of the research was to determine whether there was a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors living in Manningham (that is because of the socio-economic profile of that area) and to test the hypotheses that (i) Chinese seniors living in Manningham will experience higher levels of loneliness than Anglo-Australian seniors living in Manningham, and (ii) that Chinese seniors will self-report poorer health than Anglo-Australian seniors.

Sample size calculations were based on a two-sample t-test. Assuming a significance level of 0.05, there is 90% power to detect a difference in means of half a standard deviation if there are 85 people in each group. To allow for dropouts, 100 were recruited for each group of seniors.

The telephone interview survey method was chosen for this study utilising Computer Assisted Telephone Interview (CATI), an automated method for collecting telephone interview data. Older people are more likely to have a landline (Australian Communications and Media Authority, 2009), and expectations were that after an older person had answered

the phone, there would be a strong likelihood of them continuing with the survey. While older people whose first language is not English can be hard to reach using written or personal interview surveys, the use of the CATI method gave this study improved rigor in comparison to other survey methods. The use of CATI is a well researched and respected survey method in Australia. For example, the Federal and Victorian governments have used CATI surveys to gain information about health behaviours and health outcomes in Australian populations (CATI Technical Reference Group National Public Health Partnership, 2001).

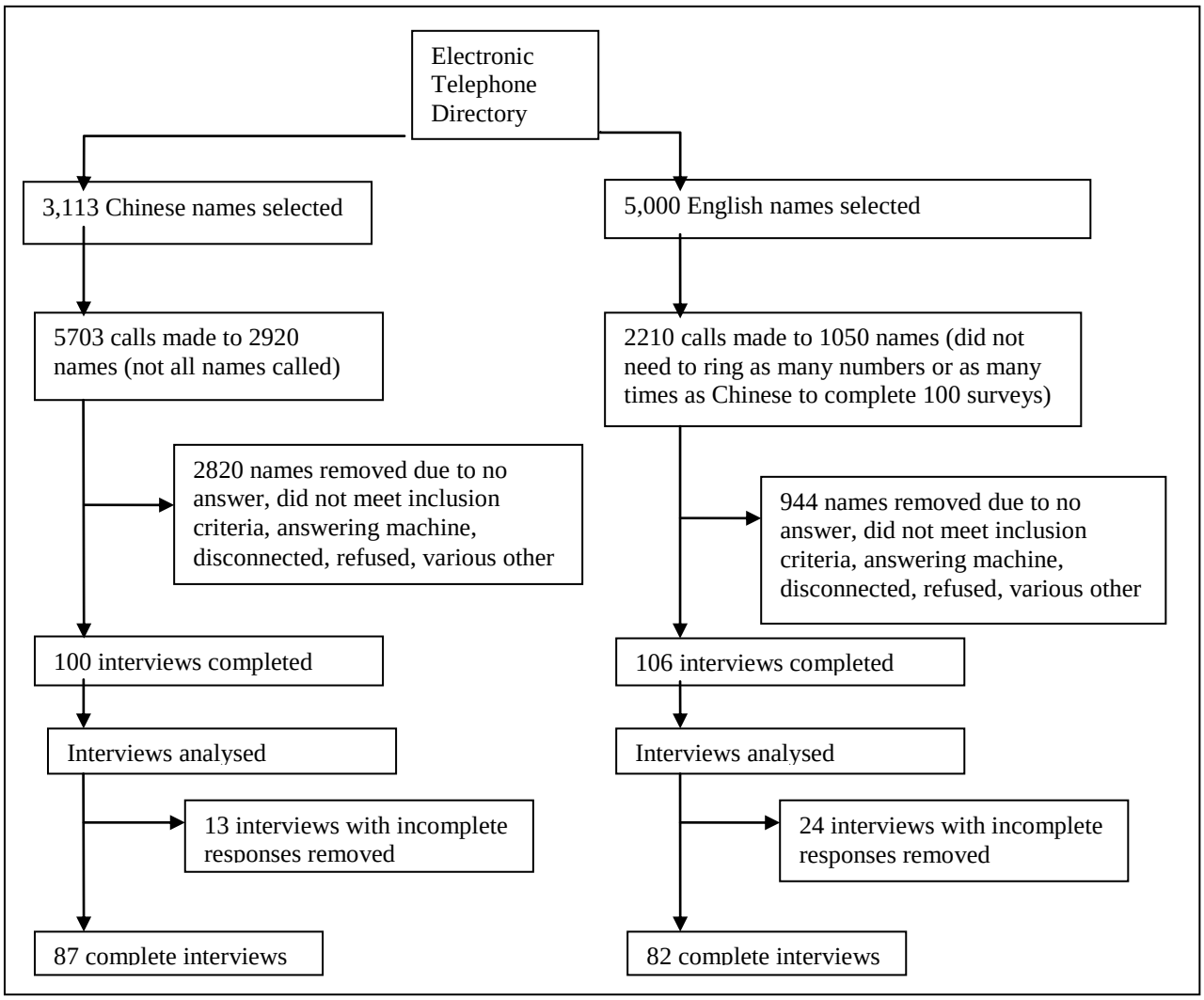
There can be perceptions of sample bias with telephone surveys. In this study, it was recognised that there may be seniors living in Manningham without telephones and with unlisted telephone numbers who would not have been included in the CATI survey sample. Additionally, seniors may have chosen to opt out of the survey by not answering the telephone or screening the call, refusing to participate in the survey once contacted, discontinuing the telephone call once the caller was identified, or providing incorrect information about inclusion criteria. Considering these limitations, telephone surveys were still considered the best available and most cost-effective method of surveying the Manningham seniors because no other contact details for seniors were available.

Between February and April 2008, a total of 5,000 sample records for Anglo-Australian seniors (based on Anglo-Australian seeming surnames) and 3,113 sample records for the Chinese seniors (based on Chinese seeming surnames) were randomly selected from the electronic telephone directory for Manningham. As noted in Figure 6, after 7,913 calls had been completed and 3,764 names had been removed, 206 community-dwelling Manningham seniors aged 65 or older were interviewed via computer assisted telephone interviews. All seniors were asked if they were over 65 years of age and living in Manningham. Chinese seniors were also asked if they identified themselves as being of Chinese ethnic origin, and were included in the survey if they identified as such. Anglo-Australian seniors were included if they did not identify as having non-Anglo ethnic origins.

As a general rule, the market research firm made up to ten attempts to establish contact with the resident at the phone number. Upon making contact, further attempts were made to achieve an interview. Contact attempts were made between 4.00 pm and 9.00 pm on weekdays and 10.00 am to 4.00 pm on weekends. Follow up appointments were made for any time within these hours if the respondent did not want to complete the interview at the time of contact. Bi-lingual interviewers were assigned to conduct the Chinese component of

the survey. Where respondents spoke a language other than English, Mandarin or Cantonese, the survey was not pursued. All interviewers attended a briefing session that included project background, objectives, procedures, administering the questionnaire and practice interviewing. Bi-lingual interviewers attended a special briefing where issues of cultural sensitivity and language were discussed. Bi-lingual interviewers used translated questionnaires as required and recorded answers directly into the English language CATI script.

Figure 7 Survey Flowchart



Pilot Testing

A total of 10 pilot test interviews were conducted to ensure the CATI script reflected the agreed questionnaire. During the pilot testing, some questions were deleted to make the

survey more user-friendly. Based on feedback, it was decided the interview was too long and some questions could be deleted as they were collecting data that was not instrumental to results. The pilot test data were not included in the main survey data set.

Call Results – English Speaking

A total of 2,210 calls were placed to 1,050 phone numbers to achieve 106 completed interviews with English speaking seniors. This equated to an interview every 20.8 calls. More than 1,300 initial calls were not answered, went to an answering machine or fax, or the number was disconnected. Almost 1 in 5 numbers (18.8%) were unusable. Five individuals refused to complete the interview, 126 households (not necessarily the individual over 65 years of age) refused to complete the interview and 3 terminated the call midway through the interview. Reasons for refusal were: no comment or hung up (27.5%), not interested (26.4%), or too busy (6.6%). Of the 1,050 calls made that were answered, an interview was achieved on 10% of calls.

Call Results – Mandarin / Cantonese Speaking

A total of 5,703 calls were placed to 2,920 phone numbers to achieve 100 interviews with Chinese seniors. This equated to an interview every 57 calls. More than 3,200 initial calls were not answered, went to an answering machine or fax, or the number was disconnected. One quarter (25.1%) were unusable. Twenty-three individuals refused to complete the interview, 334 households (not necessarily the individual over 65 years of age) refused to complete the interview and 12 terminated the call midway through the interview. Reasons for refusal were: not interested (41.2%), no comment or hung up (24.6%), or too busy (14.9%). Of the 2,920 calls made that were answered, an interview was achieved on 3.4% of calls. Under representation of people from CALD backgrounds in surveys is well documented (Dilworth-Anderson & Cohen, 2010; Feldman, Radermacher, Browning, Bird, & Thomas, 2008; Rabinowitz & Gallagher-Thompson, 2010).

Survey Question Issues

Interviewers themselves raised some issues at the end of survey de-briefing. They commented that some respondents stated the question "I expect my health to get worse" was a difficult question to answer without being pessimistic. With respect to the 10 loneliness questions, the question 'how often do you feel people are around you but not with you' –

caused some confusion with respondents, especially in the Chinese group where some of them struggled to understand this concept. The interviewers also felt the loneliness question 'how often do you feel isolated from others' – may have yielded socially desirable responses (i.e., a response intended to avoid embarrassment or disdain) as interviewers felt some of the respondents were reluctant to admit they felt isolated. Two other questions about income and obese / overweight yielded inconsistent responses as some respondents felt the questions were insensitive or too difficult to answer. This is a limitation of the research.

Measurements

A number of scales and questionnaires were combined to comprise the telephone interview. The scales and questionnaires used to measure loneliness, health, chronic disease and social participation are described below.

Loneliness

There are a number of scales that have been used to measure loneliness. These include the UCLA Loneliness Scale (Russell, 1996; Russell, et al., 1980), the De Jong Gierveld Loneliness Scale (de Jong Gierveld & Van Tilburg, 2006) and the Loneliness Rating Scale (Scalise, et al., 1984) (see Chapter Three - Conceptual Framework - Measures of Loneliness for a more detailed discussion about measures). The two most widely used scales, the UCLA Loneliness Scale and the de Jong Gierveld Loneliness Scale, measure loneliness differently based on conceptions of loneliness as either uni-dimensional (a common loneliness core with varying intensity) or multi-dimensional (different experiences of loneliness). Throughout this thesis, loneliness is examined as a uni-dimensional experience. Therefore, the UCLA Loneliness Scale was selected for use because it is a global measure of loneliness as a uni-dimensional experience.

For the present research, loneliness was assessed by a shortened 10 item version of the UCLA Loneliness Scale (Version 3) (Russell, 1996). Psychometric data (analyses of data from four diverse samples) presented in Russell's work (1996) support the reliability and validity of the UCLA Loneliness Scale (Version 3) in assessing loneliness in college students, nurses, teachers and elderly and across data collection methods. This measure

> *is highly reliable in terms of internal consistency (coefficient ranging from .89 to .94) and test-retest reliability over a 1 year period (r=.73) … convergent validity for the*

> *scale was supported by significant relations with other measures of loneliness … construct validity was supported by significant relations with measures of the adequacy of the individual's interpersonal relationships, and by measures of health and well-being* (p. 20).

When Vassar and Crosby (2008) conducted an examination of coefficient alpha of the UCLA Loneliness Scale Version 3, they found that it was an accurate measurement of loneliness for use in the general population. Russell has used this shortened version of the scale when the research methodology does not support the use of the full 20 item scale. Because the survey methodology included a lengthy telephone interview with a number of questionnaires and scales combined, reducing the loneliness questions from 20 to 10 was deemed an appropriate strategy to maximise the number of completed responses. The researcher entered into a number of email discussions with Russell to clarify scale usage (Russell, 2008). When discussing the survey methodology with Russell, he recommended the use of his shortened 10 item scale. The shortened 10 item scale includes five positively worded items such as "How often do you feel that you have a lot in common with the people around you?" and five negatively worded items such as "How often do you feel isolated from others?" Response categories were *never, rarely, sometimes, always* (*don't know* and *refused* were also included due to research obligations required for the ethical conduct of CATI) (The Market Research Society, 2005).

The Chinese language version of the full UCLA Loneliness Scale was sourced from Professor Craig A. Anderson, Department of Psychology, Iowa State University of Science and Technology, USA. Andersen first reported on this scale in his 1999 publication, *Attributional Style, Depression, and Loneliness: A Cross-cultural Comparison of American and Chinese Students* (Anderson, 1999). Permission to use the translated version of the full scale was provided by Professor Anderson (see Appendix C) and the 10 questions that matched the 10-item Shortened UCLA Loneliness Scale were extracted from the original 20-question scale and used with Cantonese / Mandarin speaking seniors when they requested the interview be conducted in their first language.

Health

Self-reported health was assessed by the SF-36v2 Health Survey (Ware & Sherbourne, 1992). The SF-36 was developed to survey health status in the Medical Outcomes Study. It was

designed for use in clinical practice and research, health policy evaluations and general population surveys as a generic measure of health. It does not target specific diseases, ages or treatment groups. It is a multi-purpose, short form health survey with 36 questions. Validity and item precision were demonstrated (McHorney, Ware, Rogers, Raczek, & Lu, 1992). The SF-36V2 improvements over the original version include improvements in item wording and format and a 6-fold increase in the ranges of scores covered. Used successfully in more than 600 randomized clinical trials reported in over 240 scientific and medical journals, the SF-36v2 (and the other variations of the scale) are proven responsive in 44 disease conditions and are accepted by the United States Food and Drug Administration as proof of benefit for improved functioning and other patient-reported outcomes. Additionally, the SF-36v2 and the SF-12v2 have been adopted as the standard of measurement by key government agencies, including the Agency for Healthcare Research and Quality, which has adopted use of the SF-12v2 for the nationally significant Medical Expenditure Panel Study (Quality Metric, 2013). The SF-36V2 has been tested extensively and has been found to be a reliable and valid measure of health (Ware, 2013).

The SF-36 is the most widely used self-reported health survey (Garratt, Schmidt, Mckintosh, & Fitzpatrick, 2002). The eight health domains measured by the SF-36v2 are:

- physical functioning – 10 questions
- role participation with physical health problems (role physical) – 4 questions
- bodily pain – 2 questions
- general health – 5 questions
- vitality – 4 questions
- social functioning – 2 questions
- role participation with emotional problems (role emotional) – 3 questions
- mental health – 5 questions
- health transition – 1 question (not used to score any of the 8 multi-item scales; a categorical variable)

Low scores across any of the health concept questions indicate poor functioning and poor health (limitations in performing physical activities, problems due to physical and emotional health, high levels of pain that impact on activities, feelings of nervousness and depression, feeling tired and worn out, and belief that personal health is poor and likely to get worse). High scores indicate high functioning and good health. For the full list of questions, refer to

Appendix B Section A Health. The official Chinese language version of the SF-36v2 (which conforms to the Scientific Advisory Committee of the Medical Outcomes Trust and ISPOR Task Force for Translation and Cultural Adaptation published guidelines) was used with Chinese participants (Quality Metric, 2010) when Cantonese / Mandarin speaking seniors requested the interview be conducted in their first language.

The Victorian Population Health Survey

Questions relating to chronic health diseases / conditions, social participation and general demographics were sourced from the Victorian Population Health Survey (VPHS) (Department of Human Services Victoria, 2007). The VPHS program was established in 1989 by the Victorian state government and collects annual information from a representative state-wide sample of adults over 18 years of age. The first survey was conducted in 2001. The survey is based on a core set of question modules including health, lifestyle and well-being that the Department states *"are critical to informing decisions about public health priorities"* (p. iii). This information is collected at state, regional and local government levels and the information is used for policy development and planning purposes. The Survey is conducted via computer assisted telephone interviews and includes questions about: self-rated health status, chronic diseases, vegetable and fruit consumption, social networks, psychological distress community participation, levels of social support and connections with others. Survey reports present time series information reporting changes over time in the adult population of Victoria.

Chronic Health Diseases / Conditions

Questions relating to chronic health diseases / conditions were sourced from Section 3-6 (Self-reported Health and Selected Health Conditions, Obesity Among Adults, Asthma, and Diabetes) of the VPHS 2006 (Department of Human Services Victoria, 2007) and were assessed by asking the following question: Has your doctor told you that you have…. Response categories were: *Yes, no, don't know*. Diseases and conditions assessed were: diabetes, hypertension, heart or coronary disease, tuberculosis, depression or anxiety, kidney disease, liver disease, cancer, arthritis, emphysema, asthma, stroke, obese or overweight, and osteoporosis. Participants were also asked if they smoke or ever smoked. For the full list of questions, refer to Appendix B Section A Health. These questions were translated into Chinese by level 2 NAATI translators from the Victorian State Government Translating and

Interpreting Service and were used when Cantonese / Mandarin speaking seniors requested the interview be conducted in their first language. While interviewers did not report any issues with these questions, this group of questions were not back translated. This is a limitation of the research.

Social Participation

Social networks and participation were assessed with questions from Section 8 (Social Support, Community Participation and Attitudes) of the VPHS 2006 (Department of Human Services Victoria, 2007). These questions cover 'informal social contacts (friends, family and neighbours) and membership or involvement with broader organisations such as sporting clubs, professional associations and community groups' (Department of Human Services Victoria, 2007). For the full list of questions, refer to Appendix B Section B Social Support. These questions were translated into Chinese by Level 2 NAATI translators from the Victorian State Government Translating and Interpreting Service and used when Cantonese / Mandarin speaking seniors requested the interview be conducted in their native language. While interviewers did not report any issues, this group of questions were not back translated. This is a limitation of the research.

General Demographics

Thirteen general demographic items were included sourced from the Demographics Section of the VPHS 2006 (Department of Human Services Victoria, 2007) asking about age, gender, marital status, country of birth, main language spoken at home, and number of people living in the household. For the full list of questions, refer to Appendix B Section D Personal Details. Additionally, the researcher devised six Manningham specific transport questions asking about use of, need for and satisfaction with transport. For the full list of questions, refer to Appendix B Section C Transport in Manningham. As Chapter One described, with no trams or trains, Manningham has particular transport challenges around access and this is what prompted the transport questions. These questions were translated into Chinese by Level 2 National Accreditation Authority for Translators and Interpreters (NAATI) translators from the Victorian State Government Translating and Interpreting Service and used when Cantonese / Mandarin speaking seniors requested the interview be conducted in their native language. While interviewers did not report any issues, this group of questions were not back translated. This is a limitation of the research.

At the conclusion of the telephone interview, respondents were asked if they would be willing to be re-contacted by the researcher to participate in a face-to-face interview. The telephone numbers of those who agreed to be re-contacted were recorded and provided to the researcher.

Data Analysis

The researcher was provided with the CATI results in Excel and SPSS formats. The SPSS data were checked for accuracy and to ensure all had been answered appropriately (that is, no 'don't know' or 'refused' answers). Direct logistic regression and chi square descriptive statistical tests were then run on the SPSS data.

Intermediate Stage – Connecting Quantitative and Qualitative Phases

The CATI survey focused on gathering information about the research problem and identified seniors who reported being lonely, but there was no capacity to identify why the participants felt lonely. To understand their experience of loneliness and to explore / explain survey findings, semi-structured interviews were considered appropriate to allow new understandings and theories to be developed. After the CATI survey data had been analysed, it was necessary to determine who would meet the criteria for a face-to-face interview. The inclusion criteria were:

1. all questions on the UCLA Loneliness Scale had been completed with none of the answers being 'don't know' or 'refused'; and
2. consent for further contact had been obtained.

Although there were a total of 206 participants, only 169 had complete loneliness scores, of whom 87 had agreed to be recontacted for a follow up interview. Of the 87 who met the inclusion criteria, 32 were Chinese and 55 were Anglo Australian. Interviews were conducted over 50-90 minutes in the participant's home. Although the researcher preferred that the interview take place with the participant only, this was not the case with a number of the Chinese interviews. At five interviews with Chinese seniors, the spouse attended and at one interview the son-in-law attended and acted as interpreter.

Phase Two - Qualitative

Data Collection

Twenty-five seniors between 65-85 years of age were interviewed between May 2009 and March 2010. The length of time spent in the field was due to difficulty contacting interviewees, scheduling interpreters for those who requested them, and challenges associated with organising and conducting the focus group.

Semi-structured interviews of between 50-90 minutes were conducted to better understand the seniors' experiences of loneliness and health, and to understand how 'place' (that is, Manningham) influenced their self-reported health. In all cases, the semi-structured interviews were conducted in the seniors' homes and each senior received written information about the research at the interview, where the process was also explained in further detail. Interviews were kept informal, with a series of open-ended questions and prompts from the researcher to elicit more information from the participants. The semi-structured interviews used open ended questions asking 'what' and 'how' with 'why' and 'tell me more about' probes to explore the participants' understandings of, interpretations and descriptions of loneliness, health and socialising. Field notes were written before and after the interviews. An Interview Guide (Appendix I) was developed which focused on current living arrangements and Manningham as a place, health, social patterns and loneliness. When developing the interview guide, the researcher anticipated that interviews would last up to two hours. However, Chinese seniors were generally quite task focussed and once they had provided initial answers to questions, did not appear interested in answering further probing questions so interviews were shorter than anticipated by nearly one hour. While Anglo-Australian seniors were more open to probing questions, they were also less interested in maintaining a 'discussion' than the researcher had hoped. Those seniors in their 80's were more interested in moving the interview along quickly than were seniors younger than 80 years of age. There was a tendency from most of the older seniors to provide one or two sentence answers to even the most open ended questions. Yet, there was no sense that the older seniors lacked energy or vitality to maintain the interview. On the contrary, they were quite energised. Yet, there was a feeling that their opinions and feelings could be expressed quite concisely. When asked for more information by the researcher, the response was often, "but I've told you what I have to say about that". Interviews tended to be shorter than anticipated by nearly one hour.

Mandarin or Cantonese speaking interpreters were used at interviews where the Chinese senior did not speak English well or where the Chinese senior requested an interpreter be present. The Mandarin speaking interpreter was born and educated in China. She was a trained General Practitioner who at the time of writing was completing her PhD at the University of Melbourne's National Ageing Research Institute. The Cantonese interpreter was born in Hong Kong, trained as a social worker, and had been employed for over ten years as a Chinese Social Support Coordinator for local government. Both interpreters had been briefed by the researcher prior to interviews and had read the explanatory statement and consent form.

Selection of Interview Participants

Seniors were selected from the original CATI participants in Phase One of the research. Phase One was conducted between February and March 2008. There was no contact with seniors for approximately 12 months between Phase 1 (March – May 2008) and Phase Two (May - October 2009). Surveyed seniors who agreed to be re-contacted were interviewed by the researcher in Phase Two. Eighty-seven of the original 206 CATI seniors agreed to be re-contacted and were also eligible for interviews (completed all 10 items on the shortened UCLA Loneliness Scale). The details of loneliness scores for the 87 seniors are summarised in Tables 4 and 5.

Table 4 Chinese Senior's Details (n=32)

Loneliness Score Range	Sex - Score	Interviewed	Agreed to interview
Very high (28-40)	1 female – 28 1 male – 32 1 male - 31	0 female 1 male – 31	33%
High (22-27)	1 male – 27 1 male - 25 1 male - 22	2 male – 25, 22.	66%
Mean (15-21)	1 female - 15 1 male – 18 2 males - 17 2 males - 15	0 female 2 male – 17, 17	33%
Low (10-14)	2 females – 13 1 female - 12 4 females - 11 4 females - 10 2 males – 14 2 males - 13 1 male - 12 1 male - 11 3 males - 10	1 female - 13 1 male – 13 (1 female – 10 pilot interview)	10%

Table 5 Anglo-Australian Senior's Details (n=55)

Loneliness Score Range	Sex - Score	Interviewed	Agreed to interview
Very high (28-40)	1 female – 34	1 female – 34	100%
High (22-27)	2 females – 25 2 females - 23 1 male – 27 1 male - 24 3 males - 22	1 female – 25 2 females - 23 1 male – 27 1 male - 24 2 males - 22	78%
Mean (15-21)	4 females – 20 4 females - 19 5 females - 17 1 female - 16 4 females - 15 2 males – 21 2 males - 20 1 male - 19 1 male - 17 1 male - 15	2 females – 20 3 females - 19 2 females - 17 1 female - 15 1 male – 21 1 male - 19	78% of those contacted
Low (10-14)	2 females – 14 3 females - 12 1 female - 11 3 males – 12 6 males - 11 5 males - 10	Did not interview any low scorers. (1 female – 11: pilot interview)	

Pilot Interviews

In May 2009, two pilot interviews were conducted. One was with a Mandarin / English speaking resident who scored 10 on the Loneliness Scale (the lowest possible score). Although she requested an interpreter, by far the great majority of the interview was in English. The pilot participant confirmed a few Mandarin words with the interpreter, but otherwise she spoke English throughout the interview. This interview lasted approximately 50 minutes.

The second pilot interview was conducted with an Anglo Australian resident who scored 11 on the Loneliness Scale (one point above the lowest possible score). This interview lasted approximately 60 minutes.

After the two pilot interviews, the Interview Guide was revised to include two new questions. The first asked the participant to describe what it was like growing up and the second asked how they felt about their childhood. There was also a change to the wording of one question about loneliness to elicit more information. Instead of asking "are you lonely?" the question was revised to ask "are there ever any times when you are lonely?".

Chinese Interview Procedures

Between May and October 2009, all consenting Chinese participants were contacted for the purpose of arranging interviews. Initially it was expected that only those Chinese participants who scored in the very high, high or mean ranges would be contacted. However, due to the low number of Chinese residents who agreed to be interviewed, those who scored in the low range were also included. Chinese participants were telephoned in order to gain consent for an interview and to collect the participant's address. Many of the participants did not speak English well enough to engage in a conversation with the researcher. When this was the case, the researcher (or the Chinese senior) terminated the phone call. The researcher then telephoned the interpreter and asked her to telephone the participant to explain the research and agree an interview time and place. This was quite a frustrating experience for both the researcher and the interpreter, as many Chinese participants refused requests for interviews. Of the 32 Chinese participants who had agreed to be re-contacted in Phase One, 25 did not complete interviews for the following reasons:

- 9 - unable to contact (i.e., phone was never answered, wrong number or disconnected)
- 14 - refused
- 2 - overseas

For those seven who did agree to be interviewed, information was provided over the phone about the research. If the researcher spoke with the participant in English, the participant was asked if she / he preferred to have an interpreter at the interview. An appointment was made for the interview and the interpreter was present if requested. Participants were provided with copies of the Explanatory Statement and Consent Form in English and Chinese. The Explanatory Statement and Consent Form were discussed, signed and collected at each interview. Interviews were conducted face-to-face in the homes of the participants and recorded. One female and six male Chinese seniors were interviewed. Although 13 female and 19 male Chinese seniors had indicated they were willing to be recontacted to participate in an interview, once contact was initiated, only one female consented to an interview. Reasons given for not consenting to an interview were: nothing to contribute, husband would not allow it, too busy, and there was nothing to be gained by granting an interview. Male Chinese seniors were more willing to consent to an interview. Reasons given by males for not consenting to an interview were: too busy, health was not good enough, not interested,

and there was nothing to be gained by granting an interview. A description of selected characteristics of the Chinese seniors interviewed is provided in Table 6.

Table 6 Chinese Seniors Interviewed

	Gender	Age	Loneliness Score	Marital status	Health	# of medical conditions	Country of birth	# living in household	Own home
CS1	Male	71	31	Mar	Fair	4	Hong Kong	4	Yes
CS2	Male	71	22	Mar	VG	3	China	2	Yes
CS3	Male	75	17	Mar	VG	1	China	2	Yes
CS4	Male	67	25	Mar	G	0	Malaysia	2	Yes
CS5	Male	77	17	Mar	VG	3	Malaysia	3	Yes
CS6	Male	80	13	Mar	VG	5	Hong Kong	6	No
CS7	Female	73	13	Mar	Fair	0	China	4	No

All Chinese seniors interviewed were married and living with (at least) their partner. Their ages ranged from 67-80 years, two rated their health as fair, loneliness scores ranged from 13-31, diagnosed medical conditions ranged from zero to six, and five owned their own home. The overall picture of the Chinese seniors is one of relative good health (regardless of the number of diagnosed medical conditions), integrated into a family, and owning their home.

The seven Chinese participants were Cantonese speaking. Two stated they were fluent in English and refused the assistance of an interpreter. One participant stated he preferred to conduct the interview in English but because he was not fluent in English, asked for an interpreter to be present to assist with any language issues. Three participants spoke very little English and an interpreter was present at these interviews. The interpreter was instructed to translate words as exactly as possible during the interview although this did not eventuate. The interpreter found word for word interpretation too awkward and instead interpreted general concepts and meanings. Therefore, three Cantonese interviews were translated into English and transcribed. At one interview the son-in-law interpreted due to confusion arising during the initial phone conversation about who was being interviewed. Upon arrival at this participant's home, when it became clear that the father-in-law was the person to be interviewed, the son-in-law agreed to act as interpreter because no interpreter had been arranged and the researcher was concerned about losing the opportunity of interviewing the father-in-law. Having a family member interpret is not an ideal situation as

personal bias and embarrassment can arise. However in this instance, the researcher was concerned that if the interview did not proceed, the family would not agree to the interview at a later date. The frustration of losing another Chinese participant overrode anticipated translation issues, and the interview resulted in good data. This interview was translated into English and transcribed.

Audio taped interviews of between 45-90 minutes in length were conducted and note taking was undertaken during the interviews by the researcher. In total, four of the interviews were translated and transcribed by a native Cantonese speaking Monash University Biomedicine student. All translated interviews were reviewed and approved by a Level 2 NAATI translator from Monash University.

Chinese Focus Group

Because only seven Chinese interviews were completed, the researcher was not convinced that theoretical saturation had been achieved. One focus group was therefore organised and conducted to validate the results of the interviews. Success in recruiting and retaining cultural minority groups to research requires that researchers take a flexible approach (Feldman, et al., 2008). Recruiting individuals to the focus group was achieved through the assistance of the President of the Chinese Senior Citizens Club of Manningham, an individual identified as enjoying the formal trust and approval of the Manningham ethnic Chinese community.

Amended ethics approval was required for the conduct of the focus group. This approval took a number of weeks and occurred over the November-December 2009 period. Other delays occurred before the focus group could be conducted. The Chinese Senior Citizens Club did not meet during the earlier weeks of January. The first delay to the focus group was due to a request by the President of the Chinese Senior Citizens Club for a pre-meeting to discuss the purpose of the focus group and sign consent forms with potential focus group members. The second delay to the focus group was due to Chinese New Year celebrations – the Club members were busy with their celebrations and asked for the focus group to be held after Chinese New Year. The third delay was due to difficulties in accessing the proposed focus group venue. All of these delays meant the focus group was not conducted until 10 March 2010.

The President of the Chinese Senior Citizens Club of Manningham was briefed about the research and agreed to gather 10-12 Manningham residents over the age of 65 who identified as ethnic Chinese. The President identified 14 Chinese seniors and organised a pre-meeting on 10 February 2010 at the Chinese Senior Citizens Club for the researcher to explain the research, review the explanatory statement and obtain consent for focus group participation. The pre-meeting was held at the Club on the same day of the week that the Club had its regular weekly meeting. At the pre-meeting, 14 potential focus group participants were provided with English and Chinese Explanatory Statements and Consent Forms. These were discussed, signed and collected. Three of the pre-meeting participants did not live in Manningham and excused themselves from the meeting. The remaining eleven focus group participants stated they spoke English well enough for the focus group to be conducted in English and at the conclusion of the pre-meeting, the remaining eleven potential participants were asked to return to a focus group to be held in a neighbouring hall scheduled for 24 February (a fortnight away). On 24 February, seven of the eleven eligible pre-meeting participants returned for the focus group. Neither the President of the Club nor the researcher was able to locate the missing participants. Unfortunately, the neighbouring hall keeper did not arrive to unlock the hall and the focus group was rescheduled to 10 March (another fortnight later). The focus group members who were present on 24 February expressed their dissatisfaction with the group not proceeding and most of them stated they would not be returning to participate in the focus group in a fortnight. They had various reasons for not returning including: it was inconvenient, they had already missed one Tai Chi or Line Dancing session, or they were no longer interested. The following fortnight, the hall keeper arrived and the focus group proceeded with three of the original eleven eligible Chinese seniors. Neither the President of the Club nor the researcher was able to locate the missing participants from the previous fortnight, so the President put in a great effort to convince Club members present on the day to participate. Fortunately, three new Club members were recruited to the focus group on 24 February. The rescheduled focus group had six participants and lasted 90 minutes. It was necessary to review the Explanatory Statement with and collect signed consent forms from the three new participants. The focus group covered similar themes and questioning as the face-to-face interviews, and was audio-taped and transcribed. The face-to-face Interview Guide was revised for the Focus Groups and is at Appendix P. All Focus Group members identified as ethnic Chinese, were 65 years of age or older and lived in Manningham. In total, 13 Chinese seniors took part in the qualitative data collection.

Anglo-Australian Interview Procedures

Between May and October 2009, all nine Anglo-Australian participants who scored in the very high and high ranges were contacted and 13 who scored in the mean range were also contacted. Four were unable to complete interviews for the following reasons:

- 3 - did not feel well enough
- 1 - did not answer the telephone

The researcher provided information over the telephone to the remaining 18 participants; they provided their addresses to the researcher and appointments were made for interviews. Twelve female and six male Anglo-Australian seniors were interviewed. Twenty-nine female and 26 male Anglo-Australian seniors had indicated they were willing to be recontacted to participate in an interview. Once contact was initiated, only four Anglo-Australian seniors refused to participate in an interview. Reasons given for not consenting to an interview were: health was not good enough and, too busy. A description of the Anglo-Australian seniors is outlined below in Table 7.

Table 7 Anglo-Australian Seniors Interviewed

	Gender	Age	Loneliness Score	Marital status	Health	# of medical conditions	Country of birth	# living in household	Own home
AS1	Female	67	34	Div	Poor	5	Other	2	Yes
AS2	Male	67	27	Mar	Fair	4	Aust	2	Yes
AS3	Female	80	25	Mar	Good	4	Aust	2	Yes
AS4	Male	83	24	Single	Good	3	Aust	1	Yes
AS5	Female	69	23	Wid	Excel	2	Aust	1	Yes
AS6	Female	84	23	Div	Good	1	Aust	1	Yes
AS7	Male	68	22	Mar	VG	1	Aust	2	Yes
AS8	Male	66	22	Wid	Fair	2	Aust	1	Yes
AS9	Male	67	21	Mar	VG	2	Aust	2	Yes
AS10	Female	86	20	Wid	Good	1	Aust	1	Yes
AS11	Female	68	20	Mar	Good	4	Aust	2	Yes
AS12	Female	84	19	Wid	Good	5	Aust	1	Yes
AS13	Female	67	19	Mar	Excel	1	Aust	2	Yes
AS14	Male	70	19	Mar	Excel	0	Aust	2	Yes
AS15	Female	88	19	Wid	Good	6	Other	2	Yes
AS16	Female	74	17	Wid	Good	3	Aust	1	Yes
AS17	Female	73	17	Wid	Good	2	Aust	2	Yes
AS18	Female	74	15	Mar	VG	3	Aust	2	Yes

Ages ranged from 66-88 years, loneliness scores ranged from 15-34, one had poor and two had fair self-reported health, diagnosed medical conditions ranged from zero to six, seven lived alone, and seniors all owned their own home. The overall picture of the Anglo-Australian seniors is of relative (but varied) good health (regardless of the number of diagnosed medical conditions), living alone or with one significant other, and high levels of home ownership.

Each participant was provided with an Explanatory Statement and Consent Form which was discussed, signed and collected at interview. Audio-taped interviews of between 35-90 minutes were conducted in the homes of the participants and note taking was undertaken during the interview by the researcher. No family members attended these interviews. Interviews with the Anglo-Australian participants were conducted until saturation was achieved. That is, by the eighteenth interview it was clear that no new information or themes were being identified.

Data Analysis

Face-to-face interviews and the focus group were digitally recorded and uploaded to a computer for verbatim transcription. The researcher transcribed interviews that were conducted in English as well as the focus group as soon as possible after the interview or focus group. An interpreter transcribed the three interviews that were conducted entirely or partially in Chinese languages. The researcher reviewed the three translated interviews to the recordings and compared the interpreter's words to the words provided by the interpreter present at the interviews. All transcripts were reviewed against the recordings three times to ensure they were an accurate reflection of the interviews / focus group. Transcripts were reformatted into a common format to assist with data organisation.

The transcripts were read, reflected on and re-read as often as necessary to ensure the researcher was as immersed as possible in the data and felt a close understanding of the dynamics of each interview. A general inductive approach was undertaken to analyse the qualitative data (Thomas, 2006). Such an approach is broad in nature and allows research findings to emerge from the themes within the raw data. The general inductive approach can also be considered thematic analysis (Hansen, 2006). Through repeated study of the transcripts, possible meanings emerged and significant themes were identified from the

complex data. Categories of loneliness, health, social patterns and Manningham as a place were created based on the interview questions and aim of the research.

Text was extracted from the transcripts and was specifically categorised into hierarchical codes (tree coding) using NVivo8 and 9 qualitative software to assist with data sorting and storage. During the coding process, key phrases, definitions, emotions, events, and descriptions were identified, indexed and sorted. Some portions of text were found that were coded into more than one category while there was also some text that was not coded at all due to its lack of relevance to the research. Codes were refined through further reflection and throughout the coding process, sub-topics and new meanings within categories were continuously examined.

After this initial coding, the broad codes were divided into Chinese or Anglo-Australian categories and then re-examined. The re-examined Chinese and Anglo-Australian categories were then re-coded and re-organised into findings about descriptions of loneliness, and then findings about how to cope with loneliness. Throughout the coding process, the data were questioned regarding differences in concepts of loneliness, health and social patterns between Anglo-Australian and Chinese seniors, as well as questioning the use of emotive words. The researcher also looked for relationships between the categories, sub-categories and codes. All data continued to be reviewed with the researcher's supervisors through face to face meetings as the coding, definitions, and concepts progressed. To avoid the researcher's own biases or assumptions in interpreting the data, the researcher discussed the transcripts and coding over several meetings with her supervisors, read widely to examine the interpretations of other studies, and included concise examples of identified themes in the thesis (Hansen, 2006). Additionally, the appropriateness of data analysis and interpretation was sought from peers (attendees) at conference presentations.

Final Stage – Triangulation

Integration of data takes place in the final stage of the thesis. Quantitative and qualitative data arguably exist on a continuum (Bazeley, 2009) and combining results of data from both methods in the integration stage can produce *"findings that are greater than the sum of parts"* (Woolley, 2009, p. 7). The data were integrated in a sequential quantitative-qualitative analysis of the qualitative contrasting case analysis type (Onwuegbuzie & Teddlie,

2003) to answer the research questions. The quantitative results were analysed first and then the qualitative results based on loneliness scores were analysed to understand the loneliness and health experiences of Chinese and Anglo-Australian seniors. The qualitative results complemented the quantitative results. Links were made between both data sets to support themes and bring the results together.

Such a combination of the strengths of quantitative and qualitative methods is undertaken to produce a result that is equivalent to a whole greater than the sum of its parts (Woolley, 2009).

Conclusion

This Chapter has reviewed the mixed methods research undertaken to examine loneliness and health in two groups of Manningham seniors. The sequential explanatory design involving a quantitative phase and a qualitative phase was described as was the integration of the two phases.

The research methodology was presented in detail and described how the different components of the research were undertaken.

In Chapter Five, the results of the quantitative phase of this research are discussed with the qualitative phase discussed in Chapter Six. The results include major trends and findings, and the significance of the findings.

Chapter Five – Quantitative Results

Introduction

The previous chapter reviewed the mixed methods design undertaken in this research around loneliness and health in Chinese and Anglo-Australian seniors. This Chapter presents the results of the quantitative phase of the research and answers the question – Is there a relationship between health and loneliness in Chinese and Anglo-Australian Manningham seniors? The following quantitative hypotheses are tested:

1. There is a relationship between health and loneliness in Chinese and Anglo-Australian Manningham seniors,
2. Chinese seniors will experience higher levels of loneliness than Anglo-Australian Manningham seniors,
3. Chinese seniors will self-report poorer health than Anglo-Australian Manningham seniors.

The qualitative results are presented in Chapter Six. The final stage of triangulation of data including the interpretation and explanation of the QUAN and qualitative results is presented in Chapter Seven – Discussion.

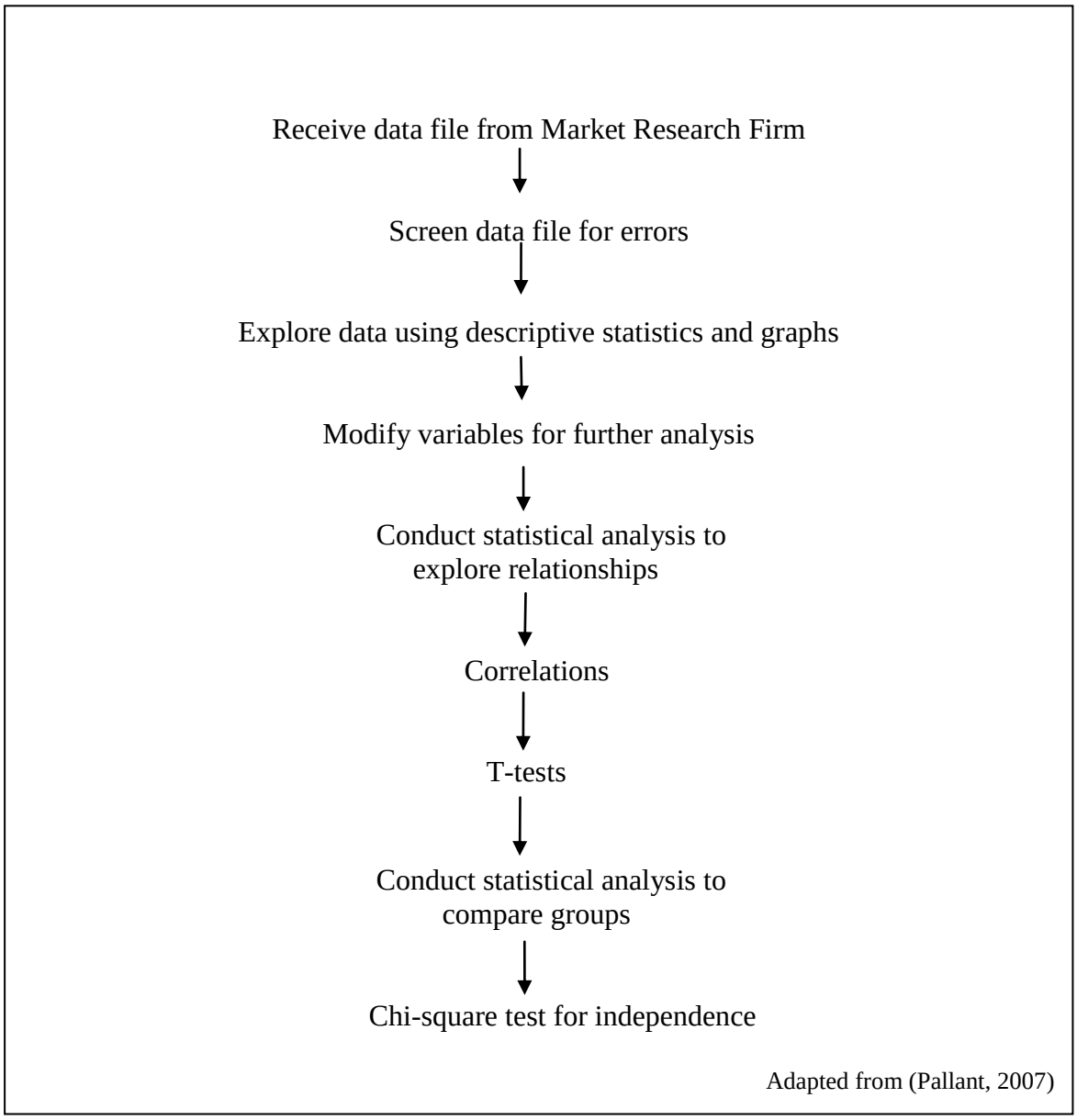
Analysis

Data analysis was conducted using SPSS version 17. Data files were prepared for entry into an SPSS codebook by the market research firm that conducted the CATI survey, and the data files were forwarded to the researcher. Descriptive and inferential analyses were undertaken. Descriptive statistics described the characteristics of Chinese and Anglo-Australian seniors and were used to compute the mean, standard deviation, range of scores, skewness and kurtosis of the loneliness scale. Inferential analysis was undertaken to understand the differences between Chinese and Anglo-Australian seniors and included both parametric and non-parametric statistical tests. Parametric tests are used when certain assumptions are met such as a continuous scale in the dependent variable, a random sample is obtained, each measurement is independent of another, there is normal distribution of scores, and variability

of scores for each group is similar (Pallant, 2007). The parametric statistical tests used included correlations and t-tests. Non-parametric tests do not make assumptions about population distributions; however they do assume a random sample, independent observations, and are used when data is nominal and ordinal (Pallant, 2007). The non-parametric statistical test used was the chi-squared test for independence, to determine whether two categorical variables were related. An alpha level of 0.05 was set for all statistical tests.

Figure 7 presents the process followed to analyse the data. The process is modified from the steps in the Flow chart of data analysis process (Pallant, 2007, p.28).

Figure 8 Flow Chart of Data Analysis Process



The first step after receiving the data file from the market research firm was to screen the data files for errors. Each variable was checked for missing scores and scores falling outside possible ranges. Those variables that had missing responses or responses found outside possible ranges were checked for inputting error and when errors were found, the variables were corrected (in consultation with the market research firm). The responses to the shortened UCLA Loneliness Scale were closely examined for errors. Cases with missing responses, don't know responses and refusal to answer, were removed. The original shortened UCLA Loneliness scale did not include missing responses, don't know responses and refusal to answer. Cases with missing/don't know/refusal to answer responses were

therefore removed from this data and imputation was not considered in line with the original method. Additionally, because the ten loneliness questions summed to a total score, it was considered that imputing a response other than the actual answer would have skewed the data. Sample size was sufficient to provide statistical significance in the absence of missing cases. Sensitivity analysis was not conducted because it would have minimal impact on the final result. Once errors had been corrected and the data file was clean, the ten individual loneliness scores were collapsed into one total loneliness score. The categorical variables of marital status, education, and age were collapsed / reduced to ensure total numbers were large enough for further statistical analysis. Data analysis via descriptive statistics then commenced. Categorical variables (demographic) were analysed using 'Frequencies' and the UCLA Loneliness Scale (a continuous variable) was analysed using 'Descriptives'. To explore the strength of the relationship between variables, correlations were computed for loneliness and: general health status, reporting excellent health, getting sick easier than others, feeling downhearted and depressed, bodily pain and feeling so down in the dumps nothing could cheer you up. T-tests and chi-square tests for independence were used to look for significant differences between the groups. When these test results were found to be significant, the sub-groups (or sub-scores) were compared using the 'standard test for the difference between two proportions' which is equivalent to a chi-squared test of independence.

.

Results

Demographic

Characteristics of the seniors were calculated using SPSS and are shown in Table 8. Of particular interest is that Anglo-Australian seniors were three times more likely to be living alone than Chinese seniors. Educational levels varied between Chinese and Anglo-Australian seniors. Anglo-Australian seniors were twice as likely as Chinese seniors to have completed secondary school and 15 times more likely to have a trade or apprenticeship qualification. Similar results were observed for both groups in achieving a university degree / diploma. Anglo-Australian seniors overall had higher levels of education than Chinese seniors, although slightly more Chinese seniors had a university degree or diploma than

Anglo-Australian seniors. The difference between the two groups within income results was interesting. However, with 55% of Chinese seniors and 39% of Anglo-Australian seniors responding with *don't know* and *refused* to the income question, the results are inconclusive. Significant differences were found regarding years lived in current home with Chinese seniors living in their current home fewer years than Anglo-Australian seniors. Anglo-Australian seniors were well entrenched in their homes and neighbourhoods. They were five times more likely than Chinese seniors to be living in their current home for more than 30 years. Chinese seniors were three times more likely to use public transport than Anglo Australian seniors and were twice as likely to report never spending time by themselves as Anglo-Australian seniors. Twice as many Chinese seniors as Anglo-Australian seniors reported both never spending time by themselves and always spending time by themselves.

Table 8 General Demographics (n=169)

Characteristic	**Chinese n=87**	**Anglo-Australian n=82**	
Males	43 (49.4%)	31 (37.8%)	
Females	44 (50.6%)	51 (62.2%)	
Aged 65-74	61 (70.1%)	50 (61%)	
Aged 75+	26 (29.9%)	32 (39%)	
Living with partner	62 (71.3%)	51 (62.2%)	
Live alone	8 (9.2%)	22 (26.8%)	**
Education			
Up to some secondary school	40 (46%)	18 (22%)	***
Completed secondary school	6 (6.9%)	11 (13.4%)	
Trade/apprenticeship, technical	2 (2.3%)	25 (30.5%)	***
University degree, diploma	31 (35.6%)	26 (31.6%)	
Other/refused	8 (9.2%)	2 (2.4%)	
Income			
less than $10,000	16 (18.4%)	2 (2.4%)	***
$10-$20,000	7 (8.1%)	12 (14.6%)	
$20-$40,000	8 (9.2%)	24 (29.3%)	***
$40-$60,000	3 (3.4%)	4 (4.9%)	
$60-80,000	3 (3.4%)	3 (3.7%)	
$80,000+	2 (2.3%)	5 (6.1%)	
Don't know	40 (46.0%)	15 (18.3%)	
Refused	8 (9.2%)	17 (20.7%)	*
Years lived in current home			
Less than 4 years	7 (8.1%)	2 (2.4%)	

Characteristic	Chinese n=87	Anglo-Australian n=82	
5 – 9 years	19 (21.8%)	6 (7.3%)	**
10-19 years	34 (39.1%)	13 (15.9%)	***
20-29 years	16 (18.4%)	15 (18.3%)	
30-39 years	8 (9.2%)	18 (22.0%)	***
40+ years	2 (2.3%)	28 (34.1%)	***
Don't know	1 (1.1%)	0 (0%)	
Retired	77 (88.5%)	75 (91.5%)	
Transport			
Car	68 (78.2%)	76 (92.7%)	
Bus	17 (19.5%)	5 (6.1%)	**
Walk	2 (3.2%)	0	
Train	0	1 (1.2%)	
Time spent by self			
Never	19 (21.8%)	8 (9.8%)	*
Rarely	22 (25.3%)	23 (28.0%)	
Sometimes	34 (39.1%)	42 (51.2%)	
Always	12 (13.8%)	6 (7.3%)	
Don't know	0	3 (3.7%)	

*p<0.05, **p<0.01, ***p<0.001

When the results between the Chinese and Anglo-Australian seniors appeared noticeably large, they were compared using the 'standard test for the difference between two proportions'. This test is equivalent to a chi-squared test of independence and determines whether the difference between two proportions is significant.

Table 6 shows a number of items marked with a p value determined by using the standard test for the difference between two proportions. Significant differences between Chinese and Anglo-Australian seniors results were found for: lives alone, education up to some secondary school and trade / apprenticeship / technical, income less than $10,000 and $20,000-$40,000, refusal to answer the income question, four of the six responses for years lived in current home, use of bus for transport, and never spending time by self.

Loneliness

Descriptive Statistics

Descriptive statistics were performed on the loneliness scores to establish the mean, standard deviation, median, skewness, kurtosis and range of the Chinese and Anglo-Australian scores

and are shown in Table 9. The results appear fairly similar between the means, median and range of the scores of the two groups. There is a noticeable difference between the skewness and kurtosis of the scores of the two groups.

Table 9 Shortened UCLA Loneliness Scale Descriptive Statistics

Statistic	Chinese	Anglo Australian	Total
N	87	82	169
Mean	16.25	16.77	16.50
Standard Deviation	5.75	4.89	5.34
Median	14	17	15
Skewness	.919	.597	.775
Standard Error of Skewness	.258	.266	.187
Kurtosis	-.129	.402	.020
Standard Error of Kurtosis	.511	.526	.371
Range	10 - 32	10 - 34	10 - 34

Advice from Russell (2008) was that the total score a senior achieved on the Scale indicated relative loneliness - that is, the higher the score, the greater loneliness. When asked for cut-off points, Russell stated that those similar to psychological scales could be used (that is two standard deviations above the mean is lonely and three standard deviations above the mean is very lonely). This criteria has been used to categorise the scores

Independent-Samples T-Test

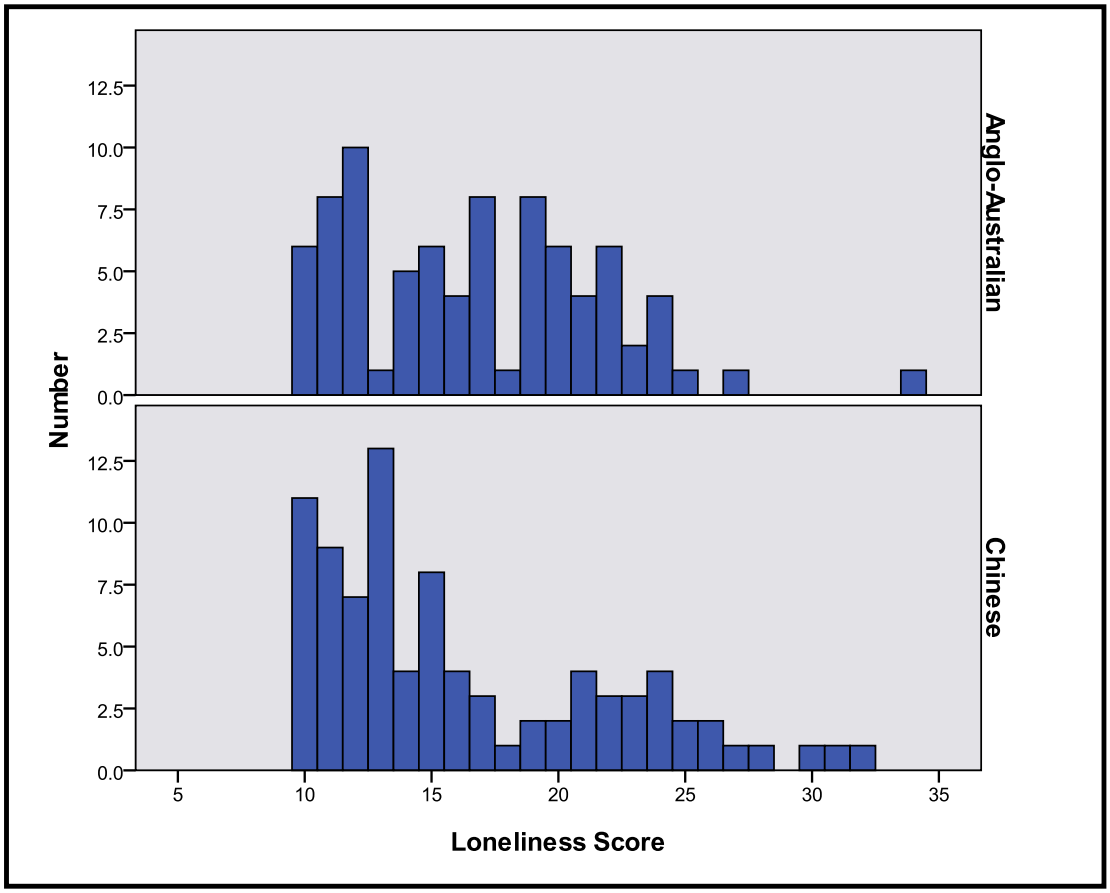
In order to determine whether there was a significant difference between the loneliness scores of the Chinese and Anglo-Australian seniors, an independent-samples t-test was performed. Table 10 shows there was no significant difference in scores for Chinese (M = 16.25, SD = 5.75) and Anglo-Australian seniors (M = 16.77, SD = 4.89; t (167) = .626, p = .10 (two-tailed). The magnitude of the differences in the means (mean difference = .52, 95% CI: -1.11 to 2.14) was very small (eta squared = .002).

Table 10 Independent Samples T-Test - Loneliness and Ethnicity

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total loneliness	Equal variances assumed	2.690	.103	.626	167	.532	.515	.823	-1.110	2.141
	Equal variances not assumed			.629	165.320	.530	.515	.819	-1.103	2.133

Although no significant difference emerged between the mean and range of both groups, Figure 8 highlights the important differences between the distributions of the loneliness scores. More Chinese seniors reported lower and higher loneliness than the Anglo-Australian seniors (flatter distribution with more cases in the extremes). Skewness of both groups is noticeable, with more seniors scoring in the low range of the scale than in the high range. More Chinese seniors than Anglo Australian seniors scored in the low and high ranges, with more Anglo-Australian seniors than Chinese seniors scoring in the mean range. Skewness towards the low range is consistently found with seniors' scores (Russell, 1996; D. Russell, 2008). As noted in Table 10, the standard test for the difference between two proportions confirms score distribution is significantly different.

Figure 9 Loneliness Score by Chinese and Anglo-Australian Senior



Loneliness, Health and Social Contact Results

Characteristics regarding loneliness scores, self-reported physical and mental health, as well as social patterns or contact, are shown in Table 13 and highlighted below. A number of items in Table 13 are marked with a p value. The p value was determined using the standard test for the difference between two proportions. This is the same test used to determine significant differences between results shown in Table 9.

Loneliness

Although no difference had been found previously between the mean loneliness scores for Chinese and Anglo-Australian seniors, significant differences in the distribution of the loneliness scores were found, with Anglo-Australian seniors nearly twice as likely as Chinese seniors to fall within the mean of loneliness scores. Score distributions in the low and high levels were different, but the results of the standard test for the difference between two proportions were not significant.

Correlations

After demographic, loneliness, health and social characteristics had been examined, the relationships between the characteristics were examined for each group of seniors. The data file was split into two files – 1) Chinese seniors and 2) Anglo-Australian seniors to undertake further analysis to explore the relationships between loneliness, health and ethnicity.

The strength and direction of relationships between loneliness scores, general health status, bodily pain, excellent health, getting sick easier than other people, feeling downhearted and depressed, and feeling so down in the dumps nothing could cheer them up were investigated using Pearson product-moment correlation coefficient.

Results of Chinese Seniors' Data

As noted in Table 11, there was a small negative correlation between loneliness and getting sick easier than others ($r = -.24$, $n = 87$, $p<.02$). There was a medium positive correlation between loneliness and general health status ($r =.32$, $n = 87$, $p<.003$); reporting less than excellent health ($r = .37$, $n = 87$, $p<.0005$), and bodily pain ($r = .32$, $n = 87$, $p<.003$); and a medium negative correlation between loneliness and feeling downhearted and depressed ($r = -.37$, $n = 87$, $p<.0005$). There was a strong negative correlation between loneliness and feeling down in the dumps ($r = -.54$, $n = 87$, $p<.0005$). Some of the direction of the coding of health data produced negative or positive results that require explanation. Due to the coding used, these results indicate the following.

There was a small correlation between:

- Feeling lonelier and getting sick easier than others.

There was a medium correlation between:

- Feeling lonelier and poorer health;
- Feeling lonelier and having less than excellent health;
- Feeling lonelier and feeling more bodily pain;
- Feeling lonelier and feeling downhearted and depressed;

There was a strong correlation:

- Feeling lonelier and feeling down in the dumps and unable to be cheered up

Stronger feelings of loneliness were associated with poorer ratings of physical and mental health.

Table 11 Correlations of Chinese Seniors' Data (n=87)

		1	2	3	4	5	6	7
1 General health status	Pearson Correlation	1	.373**	.417**	.319**	-.385**	-.164	-.411**
	Sig. (2-tailed)		.000	.000	.003	.000	.129	.000
2 How much bodily pain have you had in the past 4 weeks	Pearson Correlation	.373**	1	.320**	.315**	-.143	-.317**	-.445**
	Sig. (2-tailed)	.000		.002	.003	.186	.003	.000
3 My health is excellent	Pearson Correlation	.417**	.320**	1	.370**	-.314**	-.325**	-.439**
	Sig. (2-tailed)	.000	.002		.000	.003	.002	.000
4 Total loneliness	Pearson Correlation	.319**	.315**	.370**	1	-.242*	-.369**	-.542**
	Sig. (2-tailed)	.003	.003	.000		.024	.000	.000
5 I seem to get sick a little easier than other people	Pearson Correlation	-.385**	-.143	-.314**	-.242*	1	.295**	.561**
	Sig. (2-tailed)	.000	.186	.003	.024		.006	.000
6 In the last 4 weeks how much of the time - Have you felt downhearted and depressed?	Pearson Correlation	-.164	-.317**	-.325**	-.369**	.295**	1	.659**
	Sig. (2-tailed)	.129	.003	.002	.000	.006		.000
7 In the last 4 weeks how much of the time - Have you felt so down in the dumps that nothing could cheer you up?	Pearson Correlation	-.411**	-.445**	-.439**	-.542**	.561**	.659**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

Results of Anglo-Australian Seniors' Data

As noted in Table 12, there was a medium positive correlation between loneliness and bodily pain ($r = .31$, $n = 82$, $p<.004$); and a medium negative correlation between loneliness and: feeling downhearted and depressed ($r = -.42$, $n = 82$, $p<.0005$), and feeling down in dumps ($r = .47$, $n = 82$, $p<.0005$). There was no significant relationship between loneliness and general health status, reporting excellent health, or seeming to get sicker a little easier than others. Some of the direction of the coding of health data produced negative or positive results which require explanation. Due to the coding used, these results indicate the following.

There was a medium correlation between feeling lonelier and:

- Feeling more bodily pain;
- Feeling downhearted and depressed;
- Feeling down in the dumps

Stronger feelings of loneliness were associated with higher ratings of pain and poorer mental health, but not poorer physical health.

Table 12 Correlations of Anglo-Australian Seniors' Data (n=82)

		1	2	3	4	5	6	7
1 General health status	Pearson Correlation	1	.232*	.637**	.196	-.329**	-.346**	-.247*
	Sig. (2-tailed)		.036	.000	.077	.003	.001	.025
2 How much bodily pain have you had in the past 4 weeks	Pearson Correlation	.232*	1	.269*	.312**	-.202	-.111	-.357**
	Sig. (2-tailed)	.036		.015	.004	.069	.322	.001
3 My health is excellent	Pearson Correlation	.637**	.269*	1	.194	-.284**	-.255*	-.222*
	Sig. (2-tailed)	.000	.015		.081	.010	.021	.045
4 Total loneliness	Pearson Correlation	.196	.312**	.194	1	-.076	-.424**	-.474**
	Sig. (2-tailed)	.077	.004	.081		.499	.000	.000
5 I seem to get sick a little easier than other people	Pearson Correlation	-.329**	-.202	-.284**	-.076	1	.074	.275*
	Sig. (2-tailed)	.003	.069	.010	.499		.509	.012
6 In the last 4 weeks how much of the time - Have you felt downhearted and depressed?	Pearson Correlation	-.346**	-.111	-.255*	-.424**	.074	1	.517**
	Sig. (2-tailed)	.001	.322	.021	.000	.509		.000
7 In the last 4 weeks how much of the time - Have you felt so down in the dumps that nothing could cheer you up?	Pearson Correlation	-.247*	-.357**	-.222*	-.474**	.275*	.517**	1
	Sig. (2-tailed)	.025	.001	.045	.000	.012	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Health

Table 13 shows the significant differences between Anglo-Australian and Chinese seniors found in self-reported poorer general physical and mental health. Anglo-Australian seniors reported better general health than Chinese seniors while Chinese seniors were nearly three times more likely to report fair health. Significantly more Anglo-Australian than Chinese seniors expected their health to get worse. While Chinese seniors reported poorer health than

Anglo-Australian seniors, nearly half of the Chinese seniors reported no bodily pain in the past four weeks compared to nearly one third of the Anglo-Australian seniors reporting no bodily pain in the past four weeks. Chinese seniors reported higher rates of osteoporosis and hypertension, and were three times more likely to have been diagnosed with diabetes. Anglo-Australian seniors reported higher rates of arthritis, depression, and obesity / overweight. Mental health results were significantly different with Anglo-Australian seniors three times more likely to be diagnosed with depression, and more Chinese seniors than Anglo-Australian seniors reporting that in the past four weeks they felt downhearted and depressed, and so down in the dumps nothing could cheer them up.

Results of Chinese Seniors' Data

As shown in Table 11, the following correlations were present.
There were no small correlations found.
There were three medium positive correlations between:

- seeming to get sick easier than others and feeling downhearted and depressed ($r = .30$, $n = 87$, $p<.006$)
- more bodily pain and not rating health as excellent ($r = .32$, $n = 87$, $p<.002$)
- poorer self-reported health and more bodily pain ($r = .37$, $n = 87$, $p<.0005$)

There were six medium negative correlations between:

- rating health not excellent and seeming to get sick easier than others ($r = -.31$, $n = 87$, $p<.003$)
- rating health not excellent and:
  - feeling more downhearted and depressed ($r = -.33$, $n = 87$, $p<.002$)
  - feeling so down in the dumps that nothing could cheer you up ($r = -.44$, $n = 87$, $p<.0005$)
- poorer self-reported health and:
  - seeming to get sick a little easier than others ($r = -.39$, $n = 87$, $p<.0005$)
  - feeling so down in the dumps that nothing could cheer you up ($r = -.41$, $n = 87$, $p<.0005$)
- more bodily pain and feeling so down in the dumps nothing could cheer you up ($r = -.45$, $n = 87$, $p<.0005$)

There were two strong positive correlations between:

- seeming to get sick easier than others and feeling more down in the dumps and unable to be cheered up ($r = .56$, $n = 87$, $p<.0005$)
- feeling more down hearted and depressed and feeling so down in the dumps that nothing could cheer you up ($r = .66$, $n = 87$, $p<.0005$).

There were only two areas of health where no significant relationships were found: general health status and feeling downhearted and depressed; and bodily pain and seeming to get sick easier than others.

Results of Anglo-Australian Seniors' Data

As noted in Table 12, there were two small positive correlations between:

- poorer self-reported health and more bodily pain ($r = .23$, $n = 82$, $p<.04$)
- seeming to get sick a little easier than others and feeling so down in the dumps that nothing could cheer you up ($r = .28$, $n = 82$, $p<.01$)

There were five small negative correlations between:

- not rating health as excellent and:
  - feeling so down in the dumps that nothing could cheer you up ($r = -.22$, $n = 82$, $p<.05$)
  - feeling more downhearted and depressed ($r = -.26$, $n = 82$, $p<.02$)
  - seeming to get sick easier than others ($r = -.28$, $n = 82$, $p<.01$).
- poorer self-reported health and feeling so down in the dumps that nothing could cheer you up ($r = -.25$, $n = 82$, $p<.03$)
- more bodily pain and not rating health as excellent ($r = -.27$, $n = 82$, $p<.02$)

There were three medium negative correlations between:

- poorer self-reported health status and:
  - seeming to get sick a little easier than others ($r = -.33$, $n = 82$, $p<.003$)
  - feeling more downhearted and depressed ($r = -.35$, $n = 82$, $p<.001$)
- more bodily pain and feeling so down in the dumps nothing could cheer you up ($r = -.36$, $n = 82$, $p<.001$).

There were two strong positive correlations between:

- feeling more down hearted and depressed and feeling so down in the dumps that nothing could cheer you up ($r = .52$, $n = 82$, $p<.0005$)
- better self-reported health and rating health as excellent ($r = .64$, $n = 82$, $p<.0005$).

There were only three areas of health where no significant relationships were found: bodily pain and seeming to get sick easier than others; bodily pain and feeling downhearted and depressed; seeming to get sick easier than others and feeling downhearted and depressed.

Social Patterns

Responses to questions about social patterns of Chinese and Anglo-Australian seniors are shown the last five items presented in Table 13. All items reveal significant differences. Chinese seniors reported significantly more time talking and socialising with family and significantly less time talking and socialising with friends / neighbours than Anglo-Australian seniors. Chinese seniors were nearly 2½ times more likely to always socialise with their family than Anglo-Australian seniors while Anglo-Australian seniors were nearly twice as likely to always talk daily with friends or neighbours. Chinese seniors also reported speaking to significantly fewer people yesterday than the Anglo-Australian seniors.

Table 13 Loneliness, Health and Social Contact

	Chinese n=87	**Anglo-Australian n=82**	
Mean loneliness score	16.3	16.8	
Scores distribution			***
Low score	44 (50.6%)	30 (36.6%)	
Mean score	24 (27.6%)	37 (45.1%)	**
High/very high score (categorised as lonely)	19 (21.8%)	15 (18.3%)	
Self-reported general health			
Excellent	7 (8.0%)	13 (15.9%)	
Very good	13 (14.9%)	27 (32.9%)	**
Good	29 (33.3%)	29 (35.4%)	
Fair	30 (34.5%)	8 (9.8%)	***
Poor	8 (9.2%)	5 (6.1%)	
Health status compared to a year ago			
Worse now	23 (26.4%)	15 (18.5%)	
About the same now	53 (60.9%)	57 (70.4%)	

	Chinese n=87	Anglo-Australian n=82	
Better now	11 (12.6%)	9 (11.1%)	
I expect my health to get worse			
Definitely true	9 (10.3%)	11 (13.6%)	
Mostly true	25 (28.7%)	38 (46.9%)	**
Don't know	28 (32.2%)	19 (23.5%)	
Mostly/definitely false	25 (28.7%)	13 (16.0%)	*
Bodily pain in the past 4 weeks			
Moderate/Severe/Very severe	21 (24.4%)	14 (17.3%)	
Mild	16 (18.6%)	24 (29.6%)	
Very mild	12 (14.0%)	20 (24.7%)	
None	37 (43.0%)	23 (28.4%)	*
Chronic Diseases/Conditions			
Hypertension	46 (53.7%)	35 (42.4%)	
Arthritis	33 (38.2%)	42 (51.6%)	
Osteoporosis	21 (23.9%)	12 (14.5%)	
Heart/coronary	21 (23.7%)	18 (22.2%)	
Obese/overweight	14 (16.4%)	21 (26%)	
Diabetes	20 (23%)	6 (7.6%)	***
Depression	3 (3.2%)	10 (11.9%)	*
How often felt so down in the dumps nothing could cheer you up in the past 4 weeks?			
All/most/some/a little of the time	24 (27.6%)	12 (14.6%)	*
None of the time	63 (72.4%)	70 (85.4%)	*
How much of the time felt downhearted and depressed in the past 4 weeks?			
All/most/some of the time	21 (24.4%)	10 (12.5%)	*
A little of the time	11 (12.6%)	9 (11.0%)	
None of the time	54 (62.1%)	61 (74.4%)	
How often talk daily with friends or neighbours			
Never/rarely/sometimes	58 (66.6%)	27 (32.9%)	***
Always	29 (33.3%)	51 (62.2%)	***
Excludes don't know	0	4 (4.9%)	
How often socialise with a group of friends			
Never/rarely/sometimes	58 (66.7%)	40 (51.3%)	**
Always	29 (33.3%)	38 (48.7%)	
How often talk daily with family			
Never/rarely/sometimes	13 (14.9%)	30 (38.0%)	***
Always	74 (85.1%)	49 (62.0%)	***
How often socialise with family			
Never/rarely/sometimes	16 (18.3%)	49 (59.8%)	***
Always	71 (81.6%)	29 (35.4%)	***

	Chinese n=87	Anglo-Australian n=82	
Excludes don't know	0	4 (4.9%)	
Number of people spoken to yesterday			
Less than 5	28 (32.6%)	15 (18.3%)	*
5 or more	38 (44.2%)	26 (31.7%)	
Many, at least 10	20 (23.2%)	41 (50.0%)	***

*p<0.05, **p<0.01, ***p<0.001

Independent-Samples T-Test for Health

Five independent-samples t-tests were performed to compare the self-reported health scores between Chinese and Anglo-Australian seniors. Table 14 shows there was a significant difference in self-reported health for Chinese (*M* = 3.22, *SD* = 1.072) and Anglo-Australian seniors (*M* = 2.57, *SD* = 1.066; *t* (167) = -3.91, *p* = .0005 (two-tailed). The magnitude of the difference in the means (mean difference = -.65, 95% CI: -.97 to -.32 was moderate (eta squared = .082). A significant difference emerged between the self-reported health of both groups, with 8.25% of the variance in health explained by ethnicity.

Table 14 Independent Samples T-Test - Health and Ethnicity

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
General health status	Equal variances assumed	.010	.919	-3.921	167	.000	-.645	.165	-.970	-.320
	Equal variances not assumed			-3.921	166.516	.000	-.645	.165	-.970	-.320

A second independent-samples t-test was performed to compare the self-reported levels of bodily pain for Chinese and Anglo-Australian seniors. Table 15 shows there was no significant difference in how much bodily pain in the past 4 weeks for Chinese (*M* = 2.40, *SD*

= 1.52) and Anglo-Australian seniors (*M* = 2.46, *SD* = 1.31; *t* (165.617) = .281, *p* = .78 (two-tailed). The magnitude of the difference in the means (mean difference = 0.61, 95% CI: -.37 to .49 was very small (eta squared = .006). No significant difference emerged between the self-reported bodily pain of both groups, with only .6% of the variance in bodily pain explained by ethnicity.

Table 15 Independent Samples T-Test - Bodily Pain and Ethnicity

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
How much bodily pain have you had in the past 4 weeks	Equal variances assumed	4.668	.032	.279	167	.780	.061	.219	-.371	.493
	Equal variances not assumed			.281	165.617	.779	.061	.218	-.369	.491

A third independent-samples t-test was performed to compare the feeling of seeming to get sick a little easier than other people for Chinese and Anglo-Australian seniors. Table 16 shows there was no significant difference in seeming to get sicker a little easier than other people for Chinese (*M* = 3.33, *SD* = 1.) and Anglo-Australian seniors (*M* = 3.57, *SD* = .74; *t* (158.283) = 1.79, *p* = .08 (two-tailed). The magnitude of the difference in the means (mean difference = .240, 95% CI: -.025 to .505 was small (eta squared = .019). No significant difference emerged between the Chinese and Anglo-Australian seniors in feeling of seeming to get sick easier than other people, with only 2% of the variance explained by ethnicity.

Table 16 Independent Samples T-Test - Getting Sick Easier Than Others and Ethnicity

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
I seem to get sick a little easier than other people	Equal variances assumed	10.259	.002	1.770	167	.079	.240	.135	-.028	.507
	Equal variances not assumed			1.786	158.283	.076	.240	.134	-.025	.505

A fourth independent-samples t-test was performed to compare how much of the time Chinese and Anglo-Australian seniors felt downhearted and depressed. Table 17 shows there was a significant difference in feeling downhearted and depressed for Chinese (M = 4.36, SD = .98) and Anglo-Australian seniors (M = 4.67, SD = .79; t (163.110) = 2.31, p = .02 (two-tailed). The magnitude of the difference in the means (mean difference = .31, 95% CI: .046 to .583 was small (eta squared = .03). Although a significant difference emerged between feeling downhearted and depressed of both groups, only 3% of the variance was explained by ethnicity.

Table 17 Independent Samples T-Test - Downhearted and Depressed and Ethnicity

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
In the last 4 weeks how much of the time - Have you felt downhearted and depressed?	Equal variances assumed	10.730	.001	2.297	167	.023	.314	.137	.044	.585
	Equal variances not assumed			2.312	163.110	.022	.314	.136	.046	.583

A fifth independent-samples t-test was performed to compare how much of the time in the last four weeks Chinese and Anglo-Australian seniors felt so down in the dumps nothing could cheer them up. Table 18 shows there was a significant difference in feeling down in the dumps for Chinese (M = 4.44, SD = .99) and Anglo-Australian seniors (M = 4.72, SD = .74; t (159.368) = 2.12, p = .04 (two-tailed). The magnitude of the difference in the means (mean difference = .28, 95% CI: .019 to .547 was small (eta squared = .03). Although a significant difference emerged between respondents feeling so down in the dumps that nothing could cheer them up, only 3% of the variance was explained by ethnicity.

Table 18 Independent Samples T-Test - Felt So Down in the Dumps Nothing Could Cheer You Up and Ethnicity

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
In the last 4 weeks how much of the time - Have you felt so down in the dumps that nothing could cheer you up?	Equal variances assumed	15.601	.000	2.099	167	.037	.283	.135	.017	.549
	Equal variances not assumed			2.116	159.368	.036	.283	.134	.019	.547

Chi-Square Tests for Independence

Once the relationships had been established between loneliness and health, chi-square tests for independence were used to explore the relationship between categorical variables. Seven chi-square tests for independence were performed to explore relationships between ethnicity and health. Below are the results for the first chi-square test – ethnicity and self-reported health.

A significant association between ethnicity (Anglo-Australian / Chinese) and self-reported health, x^2 (4, n=169) = 19.999, p = .000, phi = .344 is shown below in Tables 19-21.

Table 19 Anglo / Chinese Sample and General Health Status Cross Tabulation

			General health status					
			Excellent	Very good	Good	Fair	Poor	Total
Anglo / Chinese sample	Anglo	Count	13	27	29	8	5	82
		% within Flag for English/Chinese sample	15.9%	32.9%	35.4%	9.8%	6.1%	100.0%
		% within General health status	65.0%	67.5%	50.0%	21.1%	38.5%	48.5%
		% of Total	7.7%	16.0%	17.2%	4.7%	3.0%	48.5%
	Chinese	Count	7	13	29	30	8	87
		% within flag for Anglo/Chinese sample	8.0%	14.9%	33.3%	34.5%	9.2%	100.0%
		% within General health status	35.0%	32.5%	50.0%	78.9%	61.5%	51.5%
		% of Total	4.1%	7.7%	17.2%	17.8%	4.7%	51.5%
Total		Count	20	40	58	38	13	169
		% within Flag for Anglo/Chinese sample	11.8%	23.7%	34.3%	22.5%	7.7%	100.0%
		% within General health status	100.0%	100.0 %	100.0%	100.0%	100.0%	100.0%
		% of Total	11.8%	23.7%	34.3%	22.5%	7.7%	100.0%

Table 20 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.999[a]	4	.000
Likelihood Ratio	20.949	4	.000
Linear-by-Linear Association	14.161	1	.000
N of Valid Cases	169		

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.999[a]	4	.000
Likelihood Ratio	20.949	4	.000
Linear-by-Linear Association	14.161	1	.000
N of Valid Cases	169		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.31.

Table 21 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.344	.000
	Cramer's V	.344	.000
N of Valid Cases		169	

Similar displays of results as noted in Tables 19-21 have not been included for the following six chi-square tests below because the output is highly repetitive. However, correlations between ethnicity and: health compared to one year ago, seems to get sick a little easier than others, bodily pain, feeling downhearted and depressed, feeling down in the dumps, and expecting health to get worse, are reported below.

Significant associations were found between **ethnicity** (Chinese / Anglo-Australian) and:

1) Health compared to one year ago, x^2 (2, n=169) = 18.79, p = .000, phi = .343
2) Bodily pain in the past four weeks, x^2 (3, n=167) = 8.124, p = .044, phi = .221
3) Expecting health to get worse, x^2 (3, n=168) = 8.19, p = .042, phi = .22.

No significant associations were found between **ethnicity** (Chinese / Anglo-Australian) and:

1) Seem to get sick a little easier, x^2 (2, n=169) = 4.61, p = .100, phi = .165
2) Feeling downhearted and depressed, x^2 (2, n=166) = 4.32, p = .115, phi = .16.
3) Feeling down in the dumps, x^2 (1, n=169) = 3.49, p = .06, phi = -.158 (with Yates Continuity Correction - used to compensate for possible overestimation of the chi-square value as this was a 2 by 2 table).

Four Chi-square tests for independence were performed to explore relationships between **ethnicity and social patterns**. With Yates Continuity Correction, results indicated significant associations were found between ethnicity (Chinese / Anglo-Australian) and:

1) How often talk daily with friends, x^2 (1, n=165) = 15.66, p = .0005, phi = -.320
2) How often talk daily with family, x^2 (1, n=166) = 10.28, p = .001, phi = .263
3) How often socialise with family, x^2 (1, n=165) = 32.17, p = .0005, phi = .454.

With Yates Continuity Correction, no significant association was found between ethnicity (Chinese / Anglo-Australian) and:

4) How often socialise with friends, x^2 (1, n=165) = 3.42, p = .06, phi = -.156.

Summary

The results of the quantitative phase of the research are summarised below:

1. Loneliness - The mean score on the UCLA Loneliness Scale for Chinese and Anglo-Australian seniors is similar, yet there are important differences between the distributions of the loneliness scores with Anglo-Australian seniors nearly twice as likely as Chinese seniors to fall within the mean scores of loneliness.
    - For Chinese seniors, stronger feelings of loneliness were associated with poorer ratings of physical and mental health. Chinese senior results indicated one small, four medium, and one strong correlation between loneliness and health.
    - For Anglo-Australian seniors, stronger feelings of loneliness were associated with higher ratings of pain and poorer mental health, but not poorer physical health. Anglo-Australian senior results indicated three medium correlations between loneliness and health.
2. Health – the significant differences between Chinese and Anglo-Australian seniors were:
    - Compared to Anglo-Australian seniors, Chinese seniors report poorer general physical and mental health, worse health now than one year ago, but less overall bodily pain. Chinese senior results indicated nine medium correlations and two strong correlations between physical and mental health. Chinese seniors report higher rates of osteoporosis, diabetes and hypertension.

- Compared to Chinese seniors, Anglo-Australian seniors expected their health to get worse and were three times more likely to be diagnosed with depression. Anglo-Australian senior results indicated seven small correlations, three medium correlations and two strong correlations between physical and mental health. Anglo-Australian seniors report higher rates of arthritis, depression, cancer and obesity / overweight.

3. Social patterns – Chinese seniors report significantly more contact with family, less contact with friends / neighbours and fewer people spoken to yesterday than the Anglo-Australian seniors.
4. Ethnicity – Ethnicity was found to be significantly related to self-reported health but not to loneliness. Ethnicity was also significantly related to social patterns.

Conclusion

This Chapter has presented the results of the quantitative phase of the mixed methods research undertaken to examine loneliness and health in Chinese and Anglo-Australian Manningham seniors. The results answer the quantitative hypotheses:

1. There is a relationship between health and loneliness in Chinese and Anglo-Australian seniors.

   The relationship between health and ethnicity has been demonstrated. Results of the t-tests and chi-squared tests indicate that ethnicity is significantly related to self-reported health. The relationship between loneliness and ethnicity has not been established.

2. Chinese seniors will experience higher levels of loneliness than Anglo-Australian seniors.

   Chinese seniors did not experience higher levels of loneliness than Anglo-Australian seniors. While the mean loneliness scores between the two groups of seniors were similar, a higher proportion of Chinese seniors than Anglo-Australian seniors reported low levels of loneliness. A small and not significant proportion of Chinese seniors reported high levels of loneliness.

3. Chinese seniors will self-report poorer health than Anglo-Australian seniors.

Chinese seniors were nearly three times more likely than Anglo-Australian seniors to self-report poorer health. A significant association between ethnicity and self-report health was found.

In Chapter Six, the results of the interviews and focus group comprising the qualitative phase are presented. The results include major themes and findings, the significance of the findings and implications for further research.

Chapter Six – Qualitative Results

Introduction

The previous chapter reviewed the quantitative results from this research on loneliness and self-reported health in Chinese and Anglo-Australian seniors. This chapter now builds on the quantitative results which informed the semi-structured interviews of the qualitative phase. Results are now presented of the qualitative phase of the research, and address the questions:

> *What can we learn from older Chinese and Anglo-Australian seniors about loneliness by exploring their perspectives on health?*
>
> *How does 'place' (in this case, a neighbourhood that experiences relatively good population health outcomes) impact on the health of two ethnically distinct groups?*

Details about the selection of interviewees and interview process were presented in Chapter Four – Research Design. Therefore, only interviewee details that are considered relevant to the qualitative results are included in this chapter. Findings are presented intentionally using the words of the seniors who are identified as CS (Chinese Senior) or AS (Anglo-Australian Senior), including their age.

Analysis of the qualitative data was described in Chapter Four - Research Design. A general inductive thematic analysis approach was undertaken to analyse the qualitative data (Hansen, 2006; Thomas, 2006) which is broad in nature and allows research findings to emerge from the themes within the interviews. Thematic analysis involves searching for themes that describe the phenomena through in-depth review of the data (Daly, Kellehear, & Gliksman, 1997; Rice & Ezzy, 1999). Through repeated study of the transcripts, possible meanings emerged and significant themes were identified from the complex data. Text was coded and extensively reviewed to identify concepts and issues within the interviews. Emerging themes from the raw data were categorised by the interview questions, but other themes emerged from the text which were perceptions and feelings of the seniors and not necessarily as a result of direct questioning.

The three major themes are presented under the headings of loneliness, staying health and place with sub-themes presented under each major theme. Tables 22-24 illustrate the major themes and emergent sub-theme. Key findings are summarised in the conclusion.

Reflections as Researcher

I acknowledge the gap, or cultural distance, between the interviewed Chinese and Anglo-Australian seniors and myself. Cultural distance has been described as *"the difference between the culture of the researchers and that of the participants in the research projects on which the investigators are embarked"* (Moghaddam, Walker, & Harre, 2003) (p.115). I was raised in a middle-class, North American background which was defined by relative financial comfort and success through self-reliance. The country of birth and life experiences were quite different to the seniors I interviewed.

Chinese seniors participating in this study were born in China, Hong Kong or Malaysia and reported being raised in either a deprived or a relatively comfortable environment. While some of the Chinese seniors followed their children to Manningham, a few had migrated to Australia as young people keen to start a new career and a new life. Many described growing up in large families and still missed their family back 'home'. Most Chinese Seniors described Manningham as an 'upper middle-class' area that appealed to them a great deal because of large homes, large gardens, high quality schools and nearby Chinese communities. They were quick to explain how they had worked many long hours, often seven days a week, to ensure their children would have a good life. They described how they were raised to work long hours, save money regardless of how much or little they earned, and place family above all else.

Anglo-Australian seniors participating in this study came from working class backgrounds of British heritage and were raised in relatively low-income Melbourne suburbs such as Collingwood, Williamstown, Richmond, Port Melbourne, Brunswick, Sunshine, Alphington, and Strathmore. Many Anglo-Australian seniors described growing up in difficult circumstances during the 1920's, 1930's and early 1940's. Their stories were of strict parents, alcoholic fathers and uncles, poor households and living harsh lives. Many described their move to Manningham as the opportunity to achieve success. One Anglo-Australian senior described how his father had made the decision to leave Port Melbourne (which was a very working class suburb prior to the 1980s) and take the family to Doncaster specifically to start a new life. With this move, his father had cut off all communication with his parents

and siblings so as not to be pulled back into the downtrodden life from which he felt he was escaping. He was afraid that his children would not succeed unless he started over in a better neighbourhood. While this was the most dramatic story of relocating to Manningham, Anglo-Australian seniors were clear that they had come to Manningham to better themselves. They had established themselves in a 'good' area and were not interested in looking back.

Both Chinese and Anglo-Australian seniors described upward mobility as important and expressed pride in being able to live in an area such as Manningham. Both groups described Manningham as a natural move up the socio-economic status ladder. They described lives of focussed, hard work for the purposes of providing for their families and enjoying a comfortable life after retirement. Both Chinese and Anglo-Australian seniors also expected their children to visit and telephone often throughout the week. If children lived far away, both groups of seniors felt they were missing out on an important part of life.

The differences or cultural distances became obvious throughout the interview process when Chinese seniors referred to early lives lived in deference to family customs and traditions, and Anglo-Australian seniors referred to times of financial and emotional hardship. For both groups, I adopted a role as interviewer, facilitating discussion about their experiences in three main areas (loneliness, health and Manningham), listening to their responses, and probing for further information (Boeije, 2010). Primarily, I found myself an outsider (Adler & Adler, 1987) as I was not a senior and had limited experience with Chinese culture and loneliness. There were times, however, when I found myself an insider (Adler & Adler, 1987) – particularly in regard to living in Manningham. Both Chinese and Anglo-Australian seniors appeared pleased to share something in common with me and also appeared genuinely excited that I was interested in the area of Manningham.

Cultural differences between the Chinese and Anglo-Australian seniors became evident after the first interviews as differences in customs were quickly noted. Chinese seniors treated the interview as a social activity. Husbands and wives participated in the interviews and Chinese seniors attempted to make me feel at ease by establishing an interpersonal connection. In contrast, Anglo-Australian seniors, in general, approached the interview as a transaction. If coffee or tea was offered, it was done so at the end of the interview - after the 'work' had been completed. Where Anglo-Australian seniors were living with their spouse or other family member, they ensured the family member was not present at the interview.

Who was Interviewed?

Chinese Seniors

One female and six male Chinese seniors were interviewed. A focus group was held with six Chinese seniors from the Chinese Senior Citizens Club of Manningham, who were recruited as a purposive sample (Patton, 1990). As reported in Chapter Four – Research Design – there were a number of difficulties recruiting focus group members. While these difficulties can be considered fairly commonplace when considering research challenges (Morgan, 1995), they were nonetheless frustrating for the researcher. The purpose of the focus group was to confirm general themes that had emerged from the interviews, and these were confirmed by the focus group members. The interaction between the focus group members was also important (Carey & Smith, 1994; Morgan, 2010) and is reported. Focussing on what group members were willing to share added another dimension to the cultural concepts around loneliness and health. Censoring and conformity (Carey, 1995; Carey & Smith, 1994) were evident when loneliness was discussed. Social realities such as censoring comments that did not appear to match the group's norm and / or confirming to the majority opinion of the group, added to my understanding of the cultural milieu of Chinese seniors.

Loneliness

When asked to describe what loneliness felt like, many seniors responded that they did not know because they had never been lonely, and some seniors were unable to describe loneliness at all. For those seniors who struggled with describing loneliness, the following quote encapsulates quite well that loneliness included concepts such as companionship, aimlessness, feeling out of control, and activity, which led to a sense of confusion:

> *(pause) It's hard to define. Um, (pause) I can't describe it, no. You just feel like you need some company. But, uh, let's just say every now and again I suppose it's loneliness – I don't know what else you could call it. It's lost knowing what to do.... I can always go shopping or go for a walk to break the spell, if you like. You just feel kinda pointless.* (AS, 66 years old)

When asked to describe how a lonely person might feel, seniors became more talkative and were able to provide clearer conceptualisations of loneliness. It appeared as though focusing

on how someone else might feel freed up a number of seniors to express themselves, possibly because they felt I would not form judgements about their loneliness.

Descriptions of loneliness varied considerably in depth and intensity for those seniors who were able to discuss their conceptualisations and perceptions of loneliness. Four themes were distilled from the interview transcripts and these were that loneliness was:

- **absence of an important relationship**
- **absence of direction**
- **private**
- **despairing**

The majority of seniors stated they did not feel lonely, did not know anyone who was lonely, and found it difficult to describe loneliness. Both Chinese and Anglo-Australian seniors were also adamant that they could not give advice to another person about coping with loneliness unless they knew that person extremely well. Descriptions and feelings about loneliness were remarkably similar between both groups of seniors, with the four main themes described below.

Absence of an Important Relationship

Nearly all seniors spoke of the need to feel connected to or a part of another being. The being could be a spouse, friend, pet or family member. Words they used to describe this theme included: lacking connection to another being, lacking companionship, having no one to talk to and no one to share their life experiences with, feeling their life wasn't important to anyone else or had no impact on others, feeling isolated and rejected by the people they love, feeling life wasn't complete, having no one to look after them. This was the strongest element of loneliness and seniors described how it caused emotional pain not to have a significant relationship. Both Chinese and Anglo-Australian seniors commented on the lack of connection to another. Anglo-Australian seniors more often referred to connection to an individual, while Chinese seniors more often referred to connection to their family.

> *Sometimes you miss that and you think it would be nice to hear a person's voice rather than just a recorded voice on the television (laughs), but that's the way it is....I think that's what you miss most. Having somebody to just talk about day to day things from time to time.* (AS 69 years old)

Um, I guess it means that if I have a really special moment, I don't have anybody to share it with. I don't have anybody now that I can ring and say guess what… and the same if something really bad happens. (AS 67 years old)

So long as the family is together, I don't feel lonely. (CS 67 years old)

Absence of Direction

Seniors described this theme in terms of having few if any interests, feeling pointless and not knowing what to do, being unclear about how to change their situation, feeling helpless. Boredom was regularly mentioned, however when questioned specifically about feeling bored, most of the seniors replied that they had many activities to occupy their time and they were not bored. Further probing revealed that the word boredom was often used in place of feeling directionless and purposeless. This was described particularly well by the following seniors:

It's hard to define ... let's just say every now and again I suppose it's loneliness – I don't know what else you could call it. It's lost knowing what to do. (AS 66 years old)

(You said earlier you never feel lonely?) Not feel lonely as in some people say – oh, why is it like so, what shall I do with my life – I've never felt like that. (CS, 77 years old)

Boring is when you are tired of doing something and then you get bored. Tired of doing something, whatever the things you're doing. But if lonely, you get it from inside, you feel lonely. More like from inside your heart. Yes, it's entirely different. Boring is outside. One is inside and one is outside. (Chinese focus group)

Loneliness is Private

Loneliness was usually referred to as something that should not be shared with friends or family because it was too private. Nearly all seniors felt it was no one else's business and generally they would not talk to others about feeling lonely. They stated they would not tell anyone else about feeling lonely unless it was a very close and intimate friend, and even then

they may not talk about feeling lonely. Interestingly, when discussing the private nature of loneliness, there was no mention of loneliness as a personal experience that no one else could understand. In general, loneliness was perceived as something negative and not to be shared. When asked why they didn't talk to others about feeling lonely, typical responses were:

> *you see older people, you didn't tell even your neighbours your private business … oh no … families kept with families … you didn't discuss your business, especially if it wasn't good, with other people (laughs)* (AS 86 years old)

> *in a sense I'm a bit of a private person too so I think it's none of their business … and what gives me the irits is a lot of people who are lonely pester the hell out of other people, you know I can't stand that – so I wouldn't do that to anybody else.* (AS 68 years old)

For Chinese seniors, privacy was considered important in all feelings and experiences.

> *Chinese don't share their things around, they keep that to themselves, you don't tell anybody…Chinese culture normally they don't open up or blow their trumpet…they normally keep to themselves.* (Chinese focus group)

The stigma associated with loneliness emerged during interviews, particularly in relation to ensuring loneliness was not disclosed to others. Both Chinese and Anglo-Australian seniors described loneliness as negative, something to be avoided, not to be discussed with others, undesirable, and as weakness of character. Lonely people were described as sad, depressed, needy and responsible for their loneliness. Chinese and Anglo-Australian seniors blamed lonely people for feeling lonely and believed it was up to the lonely person to take action to reduce / eliminate loneliness. Many seniors suggested they would be willing to help a lonely person. However, it would be understandable that a person who felt lonely would not feel comfortable confiding in someone who blamed them for feeling lonely. And, seniors admitted that no one spoke to them about feeling lonely. Additionally, if the seniors themselves ever felt lonely, the sense of self-blame could prevent them from discussing these feelings with anyone else. The sense of blame attached to feeling lonely was palpable:

> *One doesn't have to be socialising to be feeling worthy to other people really.* (CS, 77 years old)

"Oh you could become lonely anywhere. But that's your fault." (AS, 84 years old)

Bound up in the private nature of loneliness was the reluctance by Chinese and Anglo-Australian seniors to give advice to others about how to deal with loneliness. There was also a sense that because loneliness was so very private, a close relationship was required before advice could be offered.

"How could you advise a person with loneliness? You couldn't tell anyone what to do, no." (CS, 71 years old)

"Um, I think you'd have to know them fairly well to be able to give advice on such a thing. I don't think, no, I doubt if I could." (AS, 83 years old)

Despair Lies at the Core of Loneliness

Most of the seniors stated they were not lonely and had never felt lonely. However, there were a few seniors who discussed their feelings of loneliness, and a few seniors who considered how others who were lonely might feel. Seniors described this theme as: feeling sad, depressed, hopeless, gloomy, miserable; having nothing to live for / nothing to keep you alive; waiting to die; feeling life wasn't important; feeling their life was a big black hole; and feeling empty. A deep feeling of hopelessness was evident in this theme.

No, loneliness is to feel helpless, that sort of thing is real loneliness. Isn't it? But loneliness you have to feel you have to feel yourself, nothing good, nothing to live for, no work to do to keep you alive. That's loneliness. (Chinese focus group)

Others attempted to downplay the depth of despair:

You sort of feel a bit miserable or something like that... (long pause) no, I think that's, yeah, you just feel a bit miserable. (AS, 83 years old)

Some described loneliness as sadness and / or depression with self-blame included. There was a recurring theme that loneliness was of your own making, which may have led to greater feelings of despair in those seniors experiencing loneliness:

There were remarkable similarities between the Chinese and Anglo-Australian seniors' descriptions of loneliness, yet there were also some subtle differences. In particular, the main difference between Chinese and Anglo-Australian seniors was the importance of family

versus friends for company. Table 22 details the loneliness dimensions and sub themes between the two groups of seniors to illustrate their similarities and differences.

Table 22 Sub-Themes of Loneliness

Sub-theme	Sub-sub-themes similar between Chinese and Anglo-Australian Seniors	Sub--sub themes different between Chinese and Anglo-Australian Seniors
absence of an important relationship	• want company/companionship • no one to talk to and no one listens to you • feeling isolated from others and on your own (but not necessarily alone • losing your partner would make you feel lonely • no one understands you • feel rejected • can still be lonely even if socialising with others	• no one to share special moments with • having no friends • need other people • lonely if you can't get out and no one visits you • being alone is okay but not for too long • your life isn't important to anyone else, no impact on others • there is no one to look after you • don't feel lonely as long as the family is together/around • children/family means you are not lonely
absence of direction	• don't have enough activities • feel pointless • don't know what to do • have nothing to do • feel helpless • are bored	• can't be bothered doing anything • don't know how to change your situation
private	• don't tell others about your private business, normally keep to yourself • unless they tell you, you don't know they are lonely • must be very close (must know them intimately) to tell someone you're lonely • have a positive attitude • don't pry into people's lives • know people who might be	• you can't expect others to know about loneliness if you don't tell them • no reason to talk to others about being lonely because there's nothing they can do about it • if you're suffering you don't want people to know • always smile • self-respect is necessary

Sub-theme	Sub-sub-themes similar between Chinese and Anglo-Australian Seniors	Sub--sub themes different between Chinese and Anglo-Australian Seniors
	lonely but wouldn't use that word	
despair	• feel sad, depressed • feel gloomy	• feel depressed, hopeless, miserable, sorry for yourself • life isn't complete • a big black hole • feel empty • it's inside your heart • life isn't important, everything is gone • you feel there is nothing to live for/there is nothing good/nothing to look forward to/no work to keep you alive • waiting to die, think negatively

Managing Loneliness

None of the seniors was content only to describe loneliness. They all offered ideas about managing loneliness, and leading a full and meaningful life. Two themes emerged from the interviews when discussing how to manage or avoid loneliness - self-mastery and activity.

Self-Mastery / Control

There was a strong perception by both groups that your personality defined whether or not you would feel lonely – either you were the type of person who would be lonely, or you were not. Included in this perception were concepts such as personality attributes (being positive), self-acceptance, and taking responsibility for self (it's up to you to not be lonely). While seniors felt it was up to the individual to act to reduce loneliness, they were also willing to help lonely people if they were willing to help themselves. Most of the seniors felt that personality or character defined whether loneliness would be experienced, and how one would cope with feeling lonely. This was very well expressed by one of the Chinese seniors when he was attempting to describe someone who was lonely. He emphasised that he had never felt lonely, but in reflecting on others commented that:

"It's one's character really. It has to do with one's character very much so. Inside they can be very lonely somehow because they haven't got (pause) they don't have their own identity, their own self to be their one self or something. Deep down for people to not feel lonely, it really depends on themselves, really." (CS, 75 years old)

While a number of Anglo-Australian seniors agreed that there were times when they might feel lonely (albeit, not very often), they also felt it was personality based. One of the seniors who had never married, had no children, and a very limited network said,

"I've sort of implied that I'm a loner but I would probably prefer not to be. In other words, that's how I am." (AS, 83 years old)

The theme of one's personality being the dominating impact on feeling lonely was well expressed by one of the younger seniors who had a number of medical conditions, including depression. There was no acknowledgement that external factors contributed to her feeling lonely.

"I still have lonely times now but I've realised now that some of it is of my own making because I don't interact with people. I also am aware that it has a lot to do with just who I am." (AS, 67 years old)

Seniors stressed the importance of accepting who you are - each individual is different and each individual should accept him / herself to be happy.

"I'm never lonely because I'm quite contented with myself. I don't know if that's the right answer. I love living. And my sister, she rang this morning and she said - oh we are getting old, we are old. And I said - I hope I get very old, I like living (laughs). I'm not in a hurry (laughs)." (AS, 88 years old)

"Life is so meaningful and you should always move forward instead of backwards and you could only do so by accepting what has happened instead of avoiding it." (CS, 71 years old)

Having a positive outlook was seen as important and crucial to not experiencing loneliness.

"Oh gee. To me everything in my life revolves around being positive. Being positive. If I was lonely I would expect myself to have a good look at myself and realise what was happening in my life, how loneliness was defeating me and I would have to get out there and do something like join a club." (AS, 70 years old)

Being responsible for your actions and in control of your feelings was strongly expressed by seniors. Taking action to improve situations was also expected. Seniors routinely stated that a person who felt lonely but took no action to resolve the loneliness deserved to feel lonely.

"You just can't expect life to be on a platter. You've got to put some effort into it, and I was taught that as a child. I had meningitis as a baby and I never walked properly for a long, long time. And I used to have therapy in the Children's hospital. I must have been complaining one day and I remember my dad saying to me – look love, you've got to help yourself, do it yourself because no one can do it for you." (AS, 84 years old)

"I think it's up to the person who's lonely to make the effort. You can't expect people to do it for you. You have to actually go and do something about it. You have no right to feel lonely if you've chosen to be alone. I tried all sorts of things after my husband died to sort of get out and just not sit around the house. But I do think that it's within yourself. You have to do something about it because if you're lonely there's no guarantee that anyone else knows it. So you can't expect other people to come to your rescue, I don't think." (AS, 69 years old)

"We should have control over our own life instead of letting others manipulating and controlling it. The decision is on you and not others to decide what you would prefer in life." (CS, 73 years old)

The combined responsibility for self and the personality of loneliness was touched on by one of the Chinese seniors. He encapsulated the emphasis of changing self that was evident in most of the interviews.

"I think (pause) in a sense I think we create our own loneliness. So it's we ourselves who have to do something about it. I think if we expect others, it would be nice if

others help make us happy, but I don't think we should depend on others." (CS, 77 years old)

Finally, there was acknowledgement that while it may not be easy, it is still necessary to be in charge of your life to be happy. Having mastery or control over your world and choosing how to live, was perceived as important to living a life free from loneliness.

Internalisation of responsibility was evident throughout the interviews. This upwardly mobile and generally successful group of seniors clearly recounted the ability to master feelings, actions, friendships, and the environment. They believed the successes in their lives were due to their own actions and did not acknowledge situational circumstances such as education level, financial resources, and support systems. While a number of the seniors related a childhood of disadvantage, they told of their family making the conscious decision to change the situation and provide a better life for the children. They were raised in an environment that modeled self-reliance, action and mastery over socio-cultural determinants. They presented as confident, independent and proactive. There was little compassion expressed for those individuals who were not willing to take action to help themselves. There was also little insight into why individuals may not be able to take action. Both groups expressed a lack of understanding about why others would act differently in similar circumstances. Table 23 details the sub-themes of self-mastery / control illustrating how both groups of seniors made remarkably similar comments.

Table 23 Self-Mastery / Control Sub-Themes

	Sub-themes similar between Chinese and Anglo-Australian Seniors	Sub-themes different between Chinese and Anglo-Australian Seniors
Sense of mastery or internal control	• don't depend on others to not be lonely, rely on yourself • it's who you are, you need your own identity and then you won't be lonely • you have control over your life, it's your decision to be lonely; you create your own loneliness; need to motivate yourself to do something	• can't let life get you down, be positive, enjoy life • choosing to be alone, doesn't mean you are lonely • no point in dwelling on it • you need to learn this when you're very young

	Sub-themes similar between Chinese and Anglo-Australian Seniors	Sub-themes different between Chinese and Anglo-Australian Seniors
	• need to motivate yourself to do something, take action to change • it's not easy • you need to fend for yourself • accept life and move forward • life is meaningful	

Staying Active

The second theme was discussed in terms of staying active. Both Chinese and Anglo-Australian seniors felt having something to do and staying active was a way of managing loneliness. Chinese seniors also felt activity was crucial to promoting and / or maintaining good health, which would reduce loneliness. If one was active, good health would follow, and if one did not have good health, more activity was necessary. Anglo-Australian seniors felt activity was crucial to avoiding loneliness and not having the time to feel lonely was often stated as a reason for being active. Anglo-Australian seniors seemed to acknowledge that there could always be times when loneliness might appear, but staying busy was important.

> *"I think if you keep yourself active you've got less chance of feeling lonely. Exercise and friends and acquaintances offset this loneliness business. If you don't plan the day and let it sort of develop, sometimes it won't develop. And you find you've lost 4 or 5 hours when you could have been outside doing gardening or you could have gone to the movies or you could have called up and met a friend. But usually you have to think in advance to do that. If you keep yourself, if you plan your days I think that gets rid of the loneliness. I never felt lonely, I've always been too busy. I think loneliness comes with being inactive."* (AS, 66 years old)

Or it could be keeping busy mentally:

"I read a lot and I think a lot. And I'm involved in my own way in a lot of things. Which I prefer to be and that part of, I suppose in a sense that might be offsetting loneliness. You don't have time to be lonely." (AS, 68 years old)

Or it could be a combination of both:

"Everyday if you have something to do, you don't feel lonely. Mentally, if you are active you are not lonely. If you are active you are looking for entertainment for yourself. You feel not lonely at all." (Chinese focus group member)

"Oh, I guess it's a feeling whether you have interesting things to do. Now, um (pause) if you don't have interesting things to do well um you either try to find something or you feel down (laughs) you feel lonely (laughs)." (AS, 83 years old)

"If I feel lonely during the day I'll go out or I'll do my cross stitch and that's the way my brain is doing something. I think it's when you start to feel sorry for your self, you know. And I don't feel sorry, I feel very lucky with all that I have and all that I've got still. You know, so you do something to take your mind off it I suppose." (AS, 74 years old)

Chinese seniors strongly felt that as a person ages, more energy must be devoted to staying active. Loneliness does not necessarily happen, but if it does, one needs to become more active. Staying active is very important to good health (loneliness is part of health). The Chinese seniors also stated that they had always been active. Anglo-Australian seniors strongly felt that seniors needed to stay active to not become lonely. Being busy meant they didn't have time to be lonely. The sub themes are further detailed in Table 24 below to illustrate the similarities and differences in responses.

Table 24 Staying Active Sub-Themes

	Sub-themes similar between Chinese and Anglo-Australian Seniors	Sub-themes different between Chinese and Anglo-Australian Seniors
Staying Active	• Staying active physically and mentally means you won't be lonely • Socialise a lot • Find something to do, being busy distracts you from being lonely	• Exercise and friends reduce loneliness • Take up a hobby that interests you • Join a club, join something – go more than once so you can form a friendship

	Sub-themes similar between Chinese and Anglo-Australian Seniors	Sub-themes different between Chinese and Anglo-Australian Seniors
	• Participate in meaningful activities • Have a lot of friends or at least one very good friend to do things with • Enjoy time alone to read or pursue hobbies, garden, walk; like the quiet life – but activity is a big part of it • Pick up the telephone	• There's work to be done • A nice environment is necessary so you can stay active • It's only acceptable to not be active if you are really sick; if you don't feel well be more active • You slow down as you get older, but can't stop being active

Staying Healthy

Seniors in general were enthusiastic when asked to describe health and what it meant to be healthy. Some of the seniors queried whether I was asking them to describe good health for an older person. When told it was up to them to describe health as they wished, they discussed their health as good in relation to others their age.

> *"At the age of 70 or any person? I'd probably be talking about* ***someone my age****. When you're younger you expect to be in good health and when you get older you expect you're going to go downhill. But I don't see, I see signs in myself that there are a couple things I can't do anymore. I can't run 100 metres without getting puffed but I can play sports like tennis and golf. I can trek to most places. We walked in the glaciers in the national park for 7 hours. You know I can do all of those things. As far as I'm concerned the level of my health at the moment is just about where I'd expect it to be for a 70 year old if you're going to be happy with your health. Whereas I've got friends who have had a knee replacement, one's had a hip replacement, one has cancer, another has had their right eye completely reorganised from glaucoma. I don't have any of those problems."* (AS, 70 years old)

> *"Of course, physically is one thing. Mentally um (pause) yes I think I'm still healthy, but beginning to have more and more senior moments (laughs). Now I get worried about Alzheimer's and this and that. We have attended a couple of lectures but from what I can gather, we are about right* ***for our age****. So in that case I'm not too worried. I just live with it."* (CS, 77 years old)

A few experienced difficulties articulating how they felt about health

> *(long pause) "Being able to do what you want to do, physically. Um, I have some problems with osteoarthritis which means sometimes you're a bit slow starting off or your back hurts when you start to do something, but I don't regard that as poor health. I regard that as use it or lose it (laughs). So I think generally I enjoy good health but I probably do take it for granted."* (AS, 69 years old)

While poor health was not necessarily described as the opposite to good health, dependency was considered a marker of poor health.

> *"I'd say depressed. Lonely I suppose. Depending on other people a lot."* (AS, 86 years old)

> *"Bad health … well sick a lot I guess, you know can't get around a lot. I can't say that I can get around a lot but sort of most days I'm fine to. Using a lot of medical treatment and hospitalisation I suppose would be bad as well."* (AS, 80 years old)

A number of seniors described good health in terms of function and this is reflected in their words below. Anglo-Australian seniors, more than Chinese seniors, were more prone to describing good health as the absence of illness. Chinese seniors were more prone to focus on the concept of health as a positive state and offered many more suggestions than Anglo-Australian seniors for promoting good health. However, remarkably similar descriptions of health were provided by both Chinese and Anglo-Australian seniors. Three main descriptions of health emerged from the analysed interviews.

Health as Functional

Functional health included good physical abilities and fitness (being able to do whatever you want to do), agility, independence, absence of illness or sickness (but chronic disease is okay if well managed), absence of pain, energy, being active.

When asked to describe what good health meant, responses ranged from total functional ability to maintaining independence.

> *"I would say pain free because if you're pain free it's not obvious that you've got a problem. So if I'm pain free and also still agile so I can get around and do things, I*

can bend over, I can walk fast if I want to and I don't have breathing problems means my lungs are up to it. If I haven't got any pain, then I haven't got anything wrong with me." (AS, 68 years old)

"Staying out of hospital. And having the ability to do the things you want to do. Without saying no I can't do it because I'm not well enough. That's good health." (AS, 70 years old)

"Good health is being able to get from point A to point B when you need to. Not necessarily cars, but I mean mentally to be able to manage the transport and all that sort of thing ... to be able to do the things for yourself and be happy. That's about all, to be happy." (AS, 84 years old)

Health as Psycho-social

Psycho-social descriptions of health included: happiness, luck, peace of mind, feeling comfortable with yourself and with others, a positive attitude, and being in control of your health.

"Peace of mind is very important." (Chinese focus group)

"Free from worries. Good health you don't get sick or feel down and that sort of thing. But that's the physical part. Another way for good health is you feel free from worries and free from stress and that sort of thing – that's the mental side. But overall one feels sort of comfortable with oneself. I suppose that's the way I feel, you don't feel sort of stressed out, you know. And not feeling down all the time, not feeling unhappy. Good health means a lot, it means everything really." (CS, 75 years old)

"Um, well one who's in general good health I suppose or one who is managing their illnesses to the point where life can be good. You've got to hang on to the positive. If you fall into the negative all the time you're not going to get far. If you let that ruin your day, I think you've got to manage it. You've got to feel as though, at least feel as though you're in control." (AS, 68 years old)

"I guess, well, I'm not feeling generally not feeling poorly. In other words I can get around alright and that's about it, yeah. You know, I don't feel ill, I can eat as I like,

in other words, I'm in fairly good health. But of course, when you're in good health, you don't feel particularly good, but boy if you feel sick, you feel terrible (laughs)." (AS, 83 years old)

"What does good health mean to me? Peace of mind and just peace of mind, yeah. Good health, peace of mind and good living, able to live a good life. Not having to worry about sickness and disease. It'll happen but…" (AS, 67 years old)

Health as Healthy Living

Healthy living was described as: taking care of yourself properly (i.e., eating well, exercising, not smoking, not drinking to excess), and living in a positive environment (i.e., fresh air and water, greenery). Chinese seniors were much more forthcoming about the importance of healthy living.

"I would have to say it consist of healthy diet, hygiene, fresh air and constant exercise." (CS, 73 years old)

"Eat well. Sleep well. Good mobility." (CS, 80 years old)

"Being healthy means – good digestion, good tea, good walking, good vision ... If you always smile that makes you happy. If you happy you may be younger. If you're always upset you may be getting older. Too much upset. You can't solve the problem if you're always upset. It means you might be having problems ... To be in good health don't eat too much, drink too much, don't smoke, and work less. Have rest. Because sometimes they work 7 days per week, yes. Work too hard not really good for the health." (CS, 71 years old)

Subtle differences were found with Anglo-Australian seniors talking about the importance of enjoying friends as part of good health, and not letting concerns about health take over their life. Three Anglo-Australian female seniors in particular discussed the need to be in control of their health and the importance of not allowing doctors and specialists (all referred to as male) to hold power over them. These three female seniors had chronic illnesses or physical frailties and framed the discussion about their health in terms of a continuous struggle to achieve good health. Chinese seniors made many suggestions about joining clubs and being involved in club or group activities – but there was little mention of friends. They also placed

a great deal of emphasis on eating well (and not over eating), not smoking or drinking to excess, resting, having good digestion, sleeping well, not being stressed, and maintaining good hygiene.

Responsibility for Health

There was a strong emphasis placed by nearly all seniors on being responsible for one's own health. Good health was valued, and good health was the responsibility of each individual. This was expressed variously as being in control, managing health, conquering health, getting on with things, and learning more about health to improve health outcomes.

> *"Oh, occasionally if I'm not feeling well I tend to feel a little bit depressed but overall it's up to you isn't it to get yourself out of it."* (AS, 80 years old)

> *"Of course I'm trying to keep as alert as possible. You know they tell you to do dancing, listen to music, Sudoku, crossword puzzles we are trying all that to slow down the process. If I put in more effort I should be even better."* (CS, 77 years old)

> *"It's really up to the individual isn't it, to conquer what is causing it and try to ignore it to a certain extent, so you can live with it."* (AS, 68 years old)

> *(long pause) "The best thing I ever did was go to a 6 week course from the Arthritis Foundation and it taught me how to manage ... It taught me how to approach the doctors ... You must stand up for yourself, you must manage otherwise I don't think you could feel healthy if you had major things wrong with you. You have to manage it and then that makes you feel good or better."* (AS, 68 years old)

Some interesting contradictions were found in descriptions of health. For both Chinese and Anglo-Australian seniors, the concept of being in control of good health was strong; yet, there was also an element of chance or luck mentioned. Both concepts were incorporated in the following nearly identical quotes:

> *So, but my health doesn't worry me. I* ***just cross me fingers*** *and I* ***keep on doing my exercises daily*** *to keep limber and all sorts of nonsense.....I do exercises every day...I've done that for years and years and years*. (AS, 68 years old)

*I **keep my fingers crossed** that I'm quite alright so far except for one or two niggling things...**we have to push ourselves**...we can't say because we are old we can't do this, we can't do that.* (CS, 67 years old)

Lifestyle was the primary influence in leading a healthy life and being in or maintaining good health. While Anglo-Australian seniors primarily mentioned exercise, physical activity and joining clubs for social activities as health promoting influences, Chinese seniors primarily mentioned diet, exercise, physical activity, joining clubs and a healthy environment. Interestingly, only one Anglo-Australian senior mentioned good genes as an indicator of good health and none of the seniors mentioned a healthy upbringing as contributing to their health. A few seniors related stories of surgery or accidents which resulted in bodily damage. These seniors talked about their responsibility to overcome any limitations from surgery or accidents to return to good health. The complexity of the concept of health is also evident in the following comment from an Anglo-Australian senior who described her constant battle to stay in control of good health.

"Health didn't worry me much until I became ill and then you have to work at your health….I'm not in good health, but I cope because I want to….I don't let it rule the world….If I want to do something, I do it and then suffer the next day." (AS, 68 years old)

While most seniors enthusiastically acknowledged their responsibility for maintaining health, the few who struggled to maintain their health described the outcome as worthwhile. They felt the constant attention and control was rewarded with good health.

The Relationship Between Physical and Mental Health

Seniors were asked to comment on the relationship between physical and mental health. Did they feel there was a difference, did they feel they were connected? A few Anglo-Australian seniors' responses were surprising because although they were asked about mental health, they framed their responses around mental illness:

"Uh, well see at my age I don't suffer with depression or anything like that. And I think sometimes, but then I haven't got a lot of worries (laughs) so I don't know. And I would guess if you have financial worries or you didn't have anyone you could talk

to, you could get depressed and sort of go down with mental worries and things like that." (AS, 74 years old)

"Well there certainly is a difference, yes. One you can look at and see and touch or feel, the other you can't. I mean if you're schizophrenic or whatever, it would be very bad." (AS, 67 years old)

"Well my mental health hasn't altered. I'm not bananas or anything like that." (AS, 84 years old)

Many seniors felt there probably was a connection between physical and mental health, however they experienced difficulty in articulating the connection:

"If I have no body ache I will probably feel happy. So probably there is some sort of relationship between physical health and mental health." (CS, 80 years old)

"I know everybody says there is but I can't feel it within myself because mentally I feel just fine even though I know physically I'm not fit." (AS, 67 years old)

Yet some seniors felt quite strongly that there was a connection:

"If I keep myself busy walking and things like that, then mentally I feel better. If I'm feeling good physically and I'm exercising as part of that, then I think mentally I'm feeling better, yes." (AS, 67 years old)

"They are related. One's physical health if not really good affects one's mental health because one is involved with the other. If one has reasonable good physical health, when you have aches and pains you don't care about it. It goes away somehow." (CS, 75 years old)

In general Chinese seniors felt there was a stronger relationship between physical and mental health than Anglo-Australian seniors. They described moods, feelings and relationships as affecting physical health, while Anglo-Australian seniors never mentioned relationships as part of this connection.

"Your moods and your health will be better if you get along with each other. If you always argue and fight you won't be happy. Yes, yes. Happiness is good health. 100%, 100%. Not 99% (laughs), 100%". (CS, 71 years old)

When discussing whether their health had improved or worsened over the past year, most seniors felt their health was stable, and described biological changes associated with ageing.

> *"In terms of illness no, there's been no change. Of course, I do tire a bit when I walk long distances, but not really out of breath or anything. No, definitely slowed down. When I do gardening, sometimes it's more difficult to stretch out. I haven't done enough of yoga and all of that, but if I take my time I'm okay. But I suppose from that point of view if I put in more effort I should be even better. There are so many things I want to do, so I'm not too concerned about my physical ... So I live with it and it doesn't really bother me. It slows me down but I'm not prepared to spend all that time to go and fix it. Do you know what I mean?"* (CS, 77 years old)

> (very long pause). *"I would say no but my mobility has changed ... So, not my health, but my mobility has changed. Whether you'd call that health or not, I don't know."* (AS, 84 years old)

> *"Oh I suppose it's deteriorated slightly. I've got a few more aches and pains that I'm aware of. But I don't let them interfere with anything. For instance, my hands hurt a bit. But if I want to sew something as I'm using the scissors I'm thinking ouch, ouch, ouch but I do it just the same and put up with a little bit of discomfort."* (AS, 67 years old)

When describing how health impacted daily living, primarily Anglo-Australian seniors said they missed certain activities that, due to their ageing body, they could no longer undertake.

> *" I don't think it has any influence really ... I think to be healthy if you feel happy, you are good and you can do things as far as is allowed ... I can't walk as I would like to walk. So I have a trolley when I go shopping ... I'm scared of the dark because I lose the confidence. I can't see where I step and I might fall, you know?... I can't bend down. I had a lot of flowers, the seasonal flowers, but I can't bend down."* (AS, 88 years old)

> *"I used to go on the bike paths around the city, down to docklands and that sort of stuff ... but I don't do that anymore. I have trouble gardening. If I have to do any digging or lifting, I'm not supposed to lift anything particularly heavy and that restricts the condition of the garden ... I know I'm not as sharp as I used to be, not as*

mentally alert ... Trying to adjust to this computer business I'm having to re read often many separate times." (AS, 66 years old)

"I think as you get older you just naturally get a bit slower. A lot of people get a bit slower. Things take longer and that gets a bit frustrating at times." (AS, 73 years old)

"Yes, I don't walk like I used to so I have to use the car much more. It affects me in the garden. I don't garden anymore. I used to love going for a walk before I went to bed at night and I don't do that anymore." (AS, 84 years old)

Good health allows seniors to participate in activities that they enjoy. Factors such as: fitness, independence, absence of pain, high energy levels, peace of mind, a sense of control, and maintaining relationships all led to the ability to participate in many and varied activities. The ability to maintain active engagement with life led to a sense of accomplishment and contentment in these seniors.

However, another underlying theme emerged from the younger seniors. There was a strong feeling that they were the masters of their body, not interested in 'allowing' their bodies to age, and were working hard to 'stay young'. They associated both poor health and ageing with loss of independence. They rarely referred to themselves as ageing and often compared their physical abilities to other seniors their own age to show that they were fit and healthy. They were fearful of growing old, poor health, and losing independence. This is encapsulated well in the following quote:

"Good health basically means to be occupied. I believe so. A little bit of stress, not too much stress ... it is important to us and I believe that we have to keep occupied always, we have to push ourselves we cannot stop. The moment you stop, gone (laughs) ... We can't say because we are old we can't do this, we can't do that. Basically that's my belief. The only thing is as far as my health is concerned I have some difficulty sleeping. And that got me thinking that I need to do more exercise ... a positive attitude, I believe is very important. You may have a lot of bad nagging things here and there, but when you are involved with anything your mind goes off and that's good for you. I have an art teacher and she has lots of problems with her health. But whenever we meet she says oh don't talk like that. I don't believe in old age – she keeps saying that. And I follow that maxim in life. That's very good. She's very positive. Now she's bedridden but still I visit her and I find that she's a very good

person to follow as far as that's concerned. Oh, good health is all-important. At our age health is the most important thing of life, without good health you can't do anything." (CS, 67 years old)

Older seniors took a more holistic view of ageing with happiness or well-being the key indicator of good health and a good life. They found that the independence that the younger seniors were so fearful of losing, had been adjusted to along the way. They accepted (sometimes sadly) that they could no longer perform certain tasks, and had adjusted their activities to what they could do, placing more emphasis on mental (or non-physical) independence. However, even the oldest senior was in relatively good health and described poor health fearfully.

"Well, it's very important in old age, isn't it good health? I don't know what you'd do if you weren't in reasonable health." (AS, 86 years old)

Place Matters

"Part of the image of self is found within the context of identification with and an attachment to the places people live." (S. A. P. Taylor, 2001)

As described in Chapter One, Manningham is an area of relative good health, open green space and relatively high socio-economic status. Chinese and Anglo-Australian seniors were asked what they liked and disliked about living in Manningham, and what drew them to live in Manningham. Three strong themes emerged from the analysed interviews: seniors feel strongly connected to Manningham, Manningham's environment is perceived as promoting well-being, but Manningham's public transport system is poor. The themes are discussed below.

Seniors Feel Strongly Connected to Manningham

Both Chinese and Anglo-Australian seniors reported feeling a bond or emotional connection to Manningham. Feelings of pride, familiarity, contentment, happiness and community were often expressed. Seniors who lived in suburbs such as Warrandyte were particularly strongly connected to their 'place'. The quote below encompasses the sense that the 'place' was an old friend that provided companionship, joy and support.

"We reckon we've got the best spot and didn't need to move. So all our kids were brought up in this sort of environment. It's fantastic. I get pleasure looking out the window and walking down the paddock and watching the birds, you know, all that sort of thing. I go out on the veranda and sit and look down there. I'd rather be more active. I can't walk – that's one of the things that upsets me most because I always used to walk up to the river and back again every morning. I can't walk that far anymore, so I haven't seen my beautiful bush that I've known for years and years and years. That's sad but I can still go down to our river down here. I've got a chair down there. I sit and watch the birds and ducks, it's wonderful. That's why I think I'm so lucky to live here. And just a fantastic community. Lovely neighbours who've looked out for me. And various things in Warrandyte. There's a great community here as well as the position that our house is. It's right on the river and it can't be subdivided. So it will stay like this." (AS, 74 years old)

Chinese seniors often spoke highly about the high living standard, quiet and secure neighbourhoods, middle class and large Chinese communities, friendly Anglo-Australian neighbours, proximity to neighbouring Box Hill (for Chinese groceries and restaurants), and good schools in Manningham.

One senior commented about how her neighbourhood had changed and deteriorated. Her narrative gave the sense she was grieving for an old friend.

"I feel it's, this little area here is declining. When we were all owners of the houses, living in the houses, it was lovely. The gardens were lovely, the places were cared for and there was cooperation; there were children in and out of each other's places all day. Then people started to move off and investors started to buy some of the houses. And as you well know, when you have renters, they don't care about the house or the garden very much. And that's changed the nature of the place. So now I feel as though the nature of the suburb has changed dramatically lately through rental properties and through the explosion of units where there was one house on a big block, and now there are 3 houses and lots of cars and no communication with people. It's sort of, I think there's sort of a real change in the atmosphere, in the community. Streets change. It does affect you and how you feel." (AS, 68 years old)

The pride in living in a place where people are helpful was also a common theme.

> *"People are very friendly around here, very helpful. Because I go with the trolley and you would not believe it. If I stand somewhere because I want to cross the street, the cars stop. Very kind the people here, very kind and helpful. And here, when I stand here with my trolley, not because I can't do it, it's because I'm waiting for cars to pass, the people come – are you alright, can we help you? Very nice people around here. Even young people (laughs)."* (AS, 88 years old)

This theme was also expressed by some Chinese seniors who had been living in Manningham for less than two years.

> *"I am quite satisfied with this area. The native people here in Australia are really friendly and pleasant to stay with. For instance, our neighbours had a birthday party and they were kind enough to invite my grandson, we would exchange gifts, had regular coffee sessions together and they would assist us with the garbage bins. There was no discrimination or whatsoever due to the fact that we were unable to speak English or of different culture and background."* (CS, 73 years old)

Manningham's Natural Environment is Valued and Perceived as Promoting Well-being

The majority of residents enjoyed the natural environment and felt it contributed to well-being and good overall health. Walking in particular was mentioned as a healthy and enjoyable activity due to the many parks and walking paths throughout Manningham.

> *"I particularly like the closeness to the river and the amount of open space and walking tracks, parks and gardens. We do a lot of walking around in this area. Yup. Good social contacts around. We're very comfortable here. It's close to the city, close to the market when we want to go in. And yet a very quiet area. From my aspect Manningham has a lot to offer in that way. So we like living here*." (AS, 67 years old)

Chinese seniors in particular were pleased with the fresh air, fresh water, amount of open space and green, leafy neighbourhoods.

> *"The fresh air and quality of water has provided me with the opportunity to maintain my good health."* (CS, 73 years old)

> *"Landscape here is beautiful. I quite appreciate the landscaping here with the rolling countryside and beautiful houses here. I like to look at the garden, admire the air, admire the scenery, do my own walking. For people like us, we need to have a very nice environment in terms of the house and the place we stay. The fact that I am staying in a nice place, a nice environment, that goes a long way towards getting us to be healthy, getting us to be positive in a particular way. The place we stay in I think is very important. The fact that you have a garden to look at is important."* (CS, 67 years old)

There were only two criticisms regarding the natural environment. The first criticism was the hilly topography, which was also mentioned by many seniors as a positive aspect of the natural environment. A number of seniors commented on the difficulty they had walking through hilly streets or in parks with hills. The hilly nature of Manningham was also mentioned by a number of seniors as the reason they didn't use public transport. They felt unable to walk from their home to a bus stop.

> *"It doesn't suit older people. But there are some parts that are reasonably flat so that's not a problem. But here unfortunately it is hilly. To get to the shopping areas we have to go uphill. I can still do it alright but my wife can't. She has a prolapsed disc in her back and so we go down to the Yarra and walk around on a flat area."* (AS, 68 years old)

Public Transport is Inadequate

All Anglo-Australian seniors owned and drove their own cars. While there was acknowledgement that factors such as transport were important in their lives, because most of the seniors drove their own cars, other forms of transport were seen as incidental or for convenience (rather than necessity). There were a number of seniors who did not want to be bothered driving into the City of Melbourne (or paying expensive parking fees) and they either drove to a train station in a neighbouring municipality or drove to a bus stop where they could take public transport into the city. While very few seniors discussed the need to use public transport within Manningham (as opposed to public transport into the city), there was grave concern from some seniors about what would happen to them when they were no longer able to drive.

> *"I drive, but of course if I couldn't it'd be hopeless. I'd have to move, which would*

be terrible. What if something happened to me and I couldn't drive? And that would be pretty bad. I'd have to move, but gosh look at all this stuff that I have around me. How could I possibly move? There's no bus nearby. The bus stop isn't too far down the road but if I had to walk up this hill with goods from that bus stop, it would be, if I could not drive, that would be a big problem. It would affect my whole life." (AS, 84 years old)

"Public transport's a nightmare here, as you're probably aware. Shocking business, in fact even if I could get on the bus the way I am at the moment I have difficulty getting to the bus stop and back." (AS, 67 years old)

With most Chinese seniors driving cars, there were few complaints about public transport. Those who had a bus stop located close to where they lived were positive about public transport into the city.

For those Chinese seniors who were unhappy with public transport, the main complaints were about convenience (buses not close enough to their home, or poor timetabling), and the lack of a train or tram to service the area.

"If you miss a bus then you have to wait for half an hour. If you go to the city only two buses go every hour to the city. If you miss one you have to wait half an hour or an hour. Coming to the club my daughter drives me here in the morning. To go home, I have to take the 301 for 2 stops and then change and wait for the 903 to go back to my place. I live near Shoppingtown, so I need to take two buses ... .no public transport – no tram and no train...it's a transport problem." (Chinese focus group participant)

While seniors previously identified activity and independence as important, they did not discuss improved access to public transport as important to well-being. Both Chinese and Anglo-Australian seniors stated a train or tram service to Doncaster would be helpful and would reduce their dependence on driving. A few seniors had reflected on how difficult it would be for them to move around Manningham when they eventually could not drive, but most had not considered this. Those who had reflected on it felt the only way to cope would be to move to an area with accessible public transport. They felt the responsibility to solve transport difficulties was their own, and moving away from their current home to a place with accessible transport was how they would master the situation.

Overwhelmingly, both Chinese and Anglo-Australian seniors owned and drove their own cars. Yet they also complained about public transport in the area and the oldest seniors were concerned about their ability to move around Manningham once they were no longer able to drive. A few Anglo-Australian seniors acknowledged that, when they were at the point that they would be unable to drive, they would be forced to move out of the neighbourhood they loved. There was a contrast between the younger seniors who could never imagine themselves unable to drive, and older seniors who were facing the prospect of not being able to drive. Eventually, seniors living in Manningham will be faced with the challenge of living in a health promoting area with many open spaces, and poor transport options which limit the independence associated with successful ageing.

Conclusion

This Chapter has presented the results of the qualitative phase of the mixed methods research undertaken to examine loneliness and health in Chinese and Anglo-Australian seniors living in Manningham. Analysis of interviews with 25 seniors and a focus group have been presented here to provide insight into how respondents perceived: loneliness and health, sense of well-being, and ageing well. Additional insight was gained about how respondents felt place matters to health through the natural environment promoting well-being and poor public transport threatening independence.

The findings paint a picture of the depth and breadth of conflicting thoughts and feelings about loneliness and health. Four themes emerged about loneliness across the Chinese and Anglo-Australian seniors. While the majority of seniors stated they did not feel lonely, loneliness was described as: absence of an important relationship, absence of direction, a private experience, and incorporating despair. The themes were remarkably similar for both Anglo-Australian and Chinese seniors. The greatest distinction was that absence of an important relationship for Anglo-Australian seniors was more often than not considered to be a non-family relationship, while for Chinese seniors the important relationship was with family. All seniors offered suggestions to manage loneliness through self-mastery, meaningful activity and living in a positive environment. Chinese seniors, more than Anglo-Australian seniors, stressed the need to remain active and to increase activity if loneliness became an issue.

Most of the seniors described their own health as good or excellent. Four themes about staying healthy emerged and were conceptualised as functional (physical abilities and fitness), psycho-social (happiness, luck, positive attitude), healthy living (eating well, exercising, not smoking) and being responsible for one's own health. There was a strong emphasis placed by nearly all seniors on being responsible for their own health. In general, Chinese seniors felt there was a stronger relationship between physical and mental health than Anglo-Australian seniors, and also mentioned the importance of harmonious relationships as part of the connection between mental and physical health.

Seniors described how the place in which they lived mattered to their health. They expressed an emotional connection to Manningham and described it as an area with a high living standard, friendly neighbours, and promoting health and well-being. While Anglo-Australian seniors described their relationship to Manningham as if they were talking about an old friend, Chinese seniors described more practical community qualities such as high living standard and large Chinese community. Both groups enjoyed the natural environment and felt it contributed to well-being and good overall health. Manningham's public transport was noted as poor and an issue for many seniors because of Manningham's hilly neighbourhoods and the limited options to freely move about the area unless driving. Eventually, seniors will be faced with the challenge of continuing to live in Manningham without the ability to access the neighbourhood through driving. Many may be forced to relocate to neighbourhoods with accessible public transport.

In Chapter Seven - Discussion, the final stage of triangulation of data is presented. It includes the interpretation and explanation of the quantitative and qualitative results. As previously noted, the research questions relied on quantitative and qualitative data to identify the relationship of loneliness to health and understand why seniors feel lonely. Chapter Seven discusses findings of the thesis in detail through the social determinants of health lens incorporating the theory of Successful Ageing. .

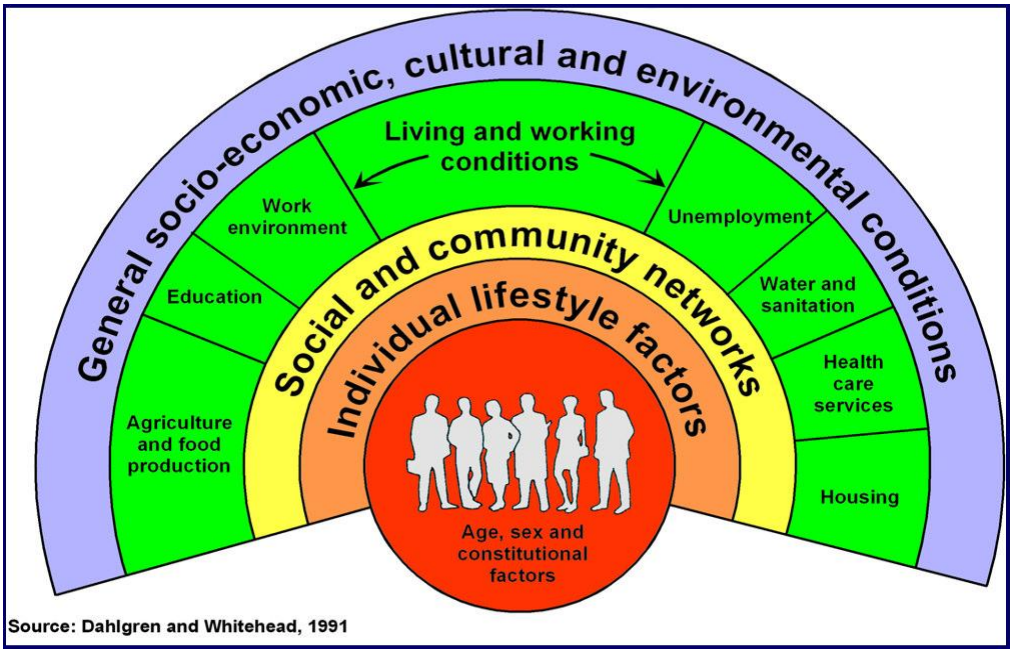
Chapter Seven – Discussion

Introduction

The purpose of this chapter is to discuss in detail the findings of the thesis with reference to the literature interpreted through the Social Determinants of Health Model as conceptualised by Dahlgren and Whitehead (1991).

In order to explore the differences in self-reported health and loneliness between Chinese and Anglo-Australian seniors and how place influences the experiences and perceptions of the two groups, Chapters One reviewed the Social Determinants of Health approach and Chapter Two outlined Rowe and Kahn's theory of Successful Ageing as the theoretical framework for the thesis. The Social Determinants of Health approach takes an integrative view of the factors that influence all aspects of living and working. The approach (Figure 9) shows how all factors fall within the general socio-economic, cultural and environmental conditions of society that also include social and community networks, as well as individual lifestyle factors.

Figure 10 Dahlgren and Whitehead's Model of the Social Determinants of Health



The over-arching research question is: how do particular social determinants of health (cultural, environmental, social and individual lifestyle factors) influence loneliness and self-reported health in Chinese and Anglo-Australian seniors? Conceived as one study, the complexity of the over-arching research question incorporated the following quantitative hypotheses and qualitative questions:

Quantitative hypotheses:

1. There is a relationship between health and loneliness in Chinese and Anglo-Australian seniors,

2. Chinese seniors will experience higher levels of loneliness than Anglo-Australian seniors,

3. Chinese seniors will self-report poorer health than Anglo-Australian seniors.

Qualitative questions:

1. What can we learn from Chinese and Anglo-Australian seniors about loneliness by exploring their perspectives on health?

2. How does perception of 'place' (in this case, a neighbourhood that experiences relatively good population health outcomes) influence the health of Chinese and Anglo-Australian seniors?

This chapter also briefly reviews the value of mixed methodology in the context of this research question, and provides an integrated analysis of the quantitative and qualitative data presented in this thesis as recommended by Yin (2006).

Main Findings of the Thesis

The aim of this research was to determine whether there is a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors, and to explore influences of social determinants of health on the experiences and perceptions of the two groups. This aim was achieved. The results of the thesis are:

1) A relationship between health and loneliness in Chinese and Anglo-Australian seniors was established.

2) Chinese seniors do not experience higher levels of loneliness than Anglo-Australian seniors.

3) Chinese seniors were nearly three times more likely than Anglo-Australian seniors to self-report poorer health.

4) While the majority of seniors stated they did not feel lonely, loneliness was described as: absence of an important relationship (Anglo-Australian seniors considered the important relationship to be with a non-family member while Chinese seniors considered the important relationship to be with family), absence of direction, a private experience, and incorporating despair. Chinese seniors perceived loneliness to be a state while Anglo-Australian seniors perceived loneliness to be a state and a trait.

5) Health was conceptualised as functional, psycho-social, and healthy living (especially staying active). Relationships and being responsible for one's own health were identified as important to health.

6) Seniors described how the place in which they lived mattered to their health.

The results are integrated into three overarching conclusions: 1) the concept of loneliness is neither well defined nor measured; 2) ethnicity and culture play a significant role in how seniors conceptualise loneliness and health; and 3) common factors (irrespective of culture) of lifestyle, place, sense of mastery and relationships are important contributors to and supporters of health as described by a social determinants approach. Integration of the quantitative and qualitative results is presented in the discussion of the conclusions that follows.

The Concept of Loneliness is Neither Well Defined nor Measured

The UCLA Loneliness Scale was constructed and tested originally within a specific western culture and based on American, Anglo-Saxon, middle-class assumptions. The Scale, in various lengths, also has been used with older Chinese adults living in China (Hawkley, Gu, Luo, & Cacioppo, 2012; Wu, et al., 2010). The Scale yields a single global score of loneliness which is conceptualised as a unitary experience that varies only in intensity. Such an approach assumes that the constructs in the scale can be validly applied across cultures. However, when examining the coefficient alpha of the Scale, Vassar and Crosby (2008)

questioned whether the Scale was an accurate measure of loneliness with immigrants and geriatric populations, and suggested further research be undertaken. As discussed in Chapter Five, the mean score on the Scale for Chinese and Anglo-Australian seniors was similar, yet there were important differences between the distributions of the scores with Anglo-Australian seniors nearly twice as likely as Chinese seniors to report a medium level of loneliness. The range of the loneliness scores of the entire group of Chinese and Anglo-Australian seniors (including the separate means) was consistent with the range of the scores of American seniors reported by Russell (1996; 2008). These results support the validity of the Scale.

Quantitative findings did not support a statistically significant relationship between ethnicity and loneliness scores, yet qualitative findings supported a difference in how Chinese and Anglo-Australian seniors perceived loneliness. While the Scale may be detecting a common core of loneliness within both groups, there were differences between Chinese and Anglo-Australian seniors in perceptions of loneliness based on cultural or social expectations when they were given the opportunity to talk about what loneliness meant to them. Additionally, a number of Chinese and Anglo-Australian seniors talked about loneliness as a temporary state while others talked about loneliness as a trait. These differences in perceptions are neither defined nor measured by the Scale.

The Scale has been translated into Chinese and back-translated (Anderson, 1999), however it is not clear how familiar some of the concepts were to the Chinese seniors in this research. Feedback from the bi-lingual CATI survey interviewers was that some of the questions on the Scale were not well understood by Chinese participants. Specifically, the question – 'how often do you feel people are around you but not with you?' - was not well understood and led to confusion. With family playing such an integral role with Chinese seniors, the word (and associated concept) 'people' (Ames, 2001) may have been conceptualised to mean - 'non-family members', adding to further confusion.

Whether Chinese seniors conceptualised 'loneliness' in the same way Anglo-Australian seniors interpreted the term was impossible to determine from the CATI survey answers because the word 'loneliness' is not used in the survey and there are no direct questions asking about 'loneliness'. However, during the face-to-face interviews, as a separate question from the Scale, seniors were asked if they felt lonely, and the majority of them stated they did not feel lonely. Seniors had variable views about what loneliness meant to

them, however their view did not appear to be related to whether they felt lonely or not. The majority of seniors reported not feeling lonely irrespective of their conceptualisation of 'loneliness'.

While acknowledging that the Scale has been used cross-culturally, these results suggest that the cultural imperatives of family and harmony contributed to a distinct understanding of loneliness amongst Chinese seniors. This finding is consistent with the literature about the influence of culture on perceptions of loneliness (Rokach, 1999; Rokach, Orzeck, Cripps, Lackovic-Grgin, & Penezic, 2001; van Tilburg, et al., 1998). Quantitative results of the study did not find ethnicity to be a significant predictor of loneliness ($p = .095$), yet the finding indicates a trend worthy of further investigation. Better validated measures for Chinese participants would go a long way towards a stronger understanding of how ethnicity influences loneliness, particularly if loneliness is considered to be part of 'health'.

CATI survey results demonstrated that Chinese seniors talked daily with family and socialised with family significantly more than did Anglo-Australian seniors. At face-to-face interviews, the majority of Chinese seniors defined loneliness as not being with their family. None of the Anglo-Australian seniors defined loneliness in that way. There was an expectation from both Chinese and Anglo-Australian seniors that their children would grow up and leave the family home to marry and have their own children. Consistent with Mak and Chan (1995), Chinese seniors expressed a strong desire for their children either to live very close by or visit many times a week as this would be an expression of respect and maintenance of family ties. Chinese seniors desired this closeness even though they reluctantly and sadly acknowledged that the world had grown to become a very large place and such family closeness was no longer possible. While acknowledging these expectations of their children, Chinese seniors did not appear distressed as they also acknowledged how the world had changed. Previous research has highlighted that harmonious family relations are considered an aspect of good health (Chou & Chi, 2004; Mjelde-Mossey, et al., 2009; Silverman, et al., 2000; Tsang, et al., 2004; Yu, et al., 1997). As evidenced by face-to-face interviews described in detail in Chapter Six, Chinese seniors perceived loneliness to be part of overall health. With families now separated, Chinese seniors expressed a greater sense of loss than Anglo-Australian seniors, and this could have led to self-reported poor health. Anglo-Australian seniors lived in smaller households than Chinese seniors and did not expect their children to live nearby or visit as often as Chinese seniors expected of their children.

CATI survey results demonstrated that Anglo-Australian seniors talked daily with friends or neighbours and socialised with a group of friends significantly more than did Chinese seniors. During face-to-face interviews, it became clear that Anglo-Australian seniors did not have the same expectations of closeness with their children as Chinese seniors. This may have contributed to their higher scores on the Scale. On the other hand, the Anglo-Australian seniors may have had a different experience of loneliness than the Chinese seniors. Anglo-Australian seniors had larger social networks of friends than Chinese seniors, and during face-to-face interviews disclosed that they were close enough to their friends to confide in them. Chinese seniors were clear in their face-to-face interviews that they would not talk about personal issues with friends. It is plausible, therefore, that for Anglo-Australian seniors, friends filled the gap left by family members.

Supporting the findings of the CATI survey, during face-to-face interviews, Anglo-Australian seniors associated depression with loneliness. In general, they stated that if a person was lonely they were probably also depressed. No significant relationship between loneliness scores and physical health emerged from the CATI survey findings. This finding was not necessarily supported during face-to-face interviews when Anglo-Australian seniors, in general, stated they would expect a person in poor health to feel lonely. They stated loneliness would be related to not being able to socialise outside of the home, implying that poor physical health also meant lack of mobility.

A number of Anglo-Australian seniors who scored as lonely stated that they enjoyed solitary activities and they did not necessarily feel lonely when they were alone. While it is possible that these seniors were lonely and did not want to admit it, it is also possible that they answered some of the Scale questions in such a way that they 'scored' as lonely even though they did not perceive themselves to be lonely. This finding is consistent with the literature that supports the difference between feeling lonely and being alone (Cohen-Mansfield & Parpura-Gill, 2007; Peplau & Perlman, 1982; Routasalo, et al., 2006; Savikko, et al., 2005; Wenger & Burholt, 2003). During one face-to-face interview, when told that the Scale had identified him as lonely, an Anglo-Australian senior stated that the Scale was wrong because he did not feel lonely. The participant's perception of his / her own loneliness or health has surfaced throughout this research as an important indicator of these constructs. Measures obtained from validated scales may not be consistent with the participant's understanding of

the constructs. A positive perception of lived experience influences seniors to report less loneliness and therefore score lower on the Scale than seniors with a less positive experience.

The UCLA Loneliness Scale is one of the most widely used loneliness scales and is regarded as a valid and reliable scale. However, it is does not appear that the Scale can account for a person who scores as lonely but does not perceive him or herself to be lonely. This finding is consistent with Routasalo and colleagues (2009) who found that the Scale was not sensitive enough to detect changes in levels of loneliness in seniors. There is no doubt that questions on the Scale such as '*how often do you feel that you have a lot in common with the people around you'*, '*how often do you feel that no one knows you really well'* and *'how often do you feel that people are around you but not with you'* are related to how well people feel connected to other people, and how well other people understand them. However whether they are measuring loneliness is less clear. Based on the results of face-to-face interviews, the questions do not identify whether Chinese or Anglo-Australian seniors perceive themselves to be lonely.

The UCLA Loneliness Scale seeks to measure a highly subjective and complex concept. Further, the word 'lonely' is never utilised in the Scale. It is reasonable to ask whether loneliness can be measured with a set of questions that do not incorporate the word 'lonely' and make no explicit reference to 'loneliness'. Advice from Russell (2008) was that the total score a senior achieved on the Scale indicated relative loneliness - that is, the higher the score, the greater loneliness. When asked for cut-off points, Russell stated that those similar to psychological scales could be used (that is two standard deviations above the mean is lonely and three standard deviations above the mean is very lonely). It is reasonable to question whether cut-off points are appropriate at all. The questions in the Scale seek to measure how often a person feels a certain way about certain situations; the responses are summed to reach a score. The questions do not elicit the full meaning of loneliness in the same way face-to-face interviews do. Therefore, two individuals might answer all questions in the same way, yet have different perceptions of whether or not they feel lonely. The key point appears to be the individual's understanding of why he / she feels lonely, or not. The Scale produces a score, but no understanding or explanation behind the score. Following the administration of the Scale with a face-to-face interview produces much deeper and richer insights than administering the Scale on its own. This approach arguably facilitates a more comprehensive understanding of loneliness. Thus the face-to-face interview used in this

thesis sheds light on whether the Scale measures loneliness the way the surveyed person perceives the nature of loneliness to be for him her.

The definition used for loneliness in this thesis is *'an unpleasant feeling with some level of deficiency in intimate relationships including a feeling of lack of fulfilment and separation from others'* (Peplau & Perlman, 1982). Some of the seniors interviewed face-to-face stated they did not feel they had much in common with others, but they also stated that they were not 'bothered' by this. Some of the seniors described themselves as very private individuals who did not share much about themselves with others. As private individuals, they did not expect that other people would know them really well, and they were not bothered by this. These seniors also described participating in fulfilling intimate relationships. Unless a senior perceived some sense of unpleasant feeling, deficient relationships and / or separation from others, they did not report that they were lonely regardless of their score on the Scale. A few seniors stated quite openly that they felt lonely and attributed their loneliness to poor health and lack of mobility. They felt unhappy with their situation and felt separated from others. Additionally, a number of the seniors talked about loneliness as a temporary state while others talked about loneliness as an element of their personality. A failing of the Scale is, arguably, its inability to differentiate between these experiences.

In summary, qualitative analysis uncovered a depth and breadth of conflicting thoughts and feelings about loneliness. As discussed in Chapter Six, while the majority of Chinese and Anglo-Australian seniors stated they did not feel lonely, loneliness was described as: absence of an important relationship, absence of direction, a private experience, and incorporating despair. The descriptions of loneliness were similar for both Anglo-Australian and Chinese seniors. The greatest distinction in the description of absence of an important relationship was that Anglo-Australian seniors more often than not considered the important relationship to be a non-family relationship, while for Chinese seniors the important relationship was considered to be with their family. Chinese seniors also perceived loneliness to be a state while Anglo-Australian seniors perceived loneliness to be a trait and a state. In keeping with the Chinese seniors' perception of loneliness conceived as a state, they offered suggestions to manage loneliness through self-mastery, meaningful activity and living in a positive environment. Chinese seniors, more than Anglo-Australian seniors, stressed the need to remain active, and to increase activity if loneliness became an issue. The finding indicates

that while loneliness is a universal phenomenon, it is experienced differently across cultural groups and this difference is not well defined or measured using the Scale.

Ethnicity and Culture Play a Significant Role in how Seniors Conceptualise Loneliness and Health

Ethnicity was one of the underlying themes explored throughout the thesis. CATI survey questions about loneliness and health were anchored within the assumption that there would be differences between Chinese and Anglo-Australian seniors. The quantitative hypotheses were that there would be a relationship between health and loneliness in Chinese and Anglo-Australian seniors, Chinese seniors would experience higher levels of loneliness than Anglo-Australian seniors, and that Chinese seniors would self-report poorer health than Anglo-Australian seniors. The quantitative hypotheses were based on expectations that the Chinese seniors as a migrant group, would feel isolated, and that as a migrant group, they would report poorer health outcomes than non-migrant populations (Menec, et al., 2007).

As detailed in Chapter Five, analysis of the quantitative results identified the significant differences between the Chinese and Anglo-Australian seniors regarding loneliness and health. Ethnicity was found to be significantly related to self-reported health, but not to loneliness. Chinese seniors reported significantly more contact with family, less contact with friends / neighbours and fewer people spoken to yesterday than Anglo-Australians. These findings raised a number of issues, which prompted the development of a series of open-ended questions to gain a better understanding of Chinese and Anglo-Australian perspectives on loneliness and health. The face-to-face interviews sought to gather information to understand why and how ethnicity influenced loneliness and health in these two distinct groups of seniors.

Quantitative findings revealed that the means, medians and range of the scores on the Scale for Chinese and Anglo-Australian seniors were similar with no statistically significant differences. However, there were important differences between the distributions of the loneliness scores with Anglo-Australian seniors nearly twice as likely as Chinese seniors to score in the average range of loneliness (that is, close to the mean on the Scale). A higher proportion of Chinese seniors than Anglo-Australian seniors scored in the low range of loneliness. A small and not statistically significant proportion of Chinese seniors scored in the high range of loneliness. Significantly, for Chinese seniors, higher scores on the Scale

were associated with poorer ratings of physical and mental health. Significantly, for Anglo-Australian seniors, higher scores on the Scale were associated with higher ratings of pain and poorer mental health, but not poorer physical health. The relationship between loneliness and poor physical and mental health in Chinese seniors should not be surprising because of their holistic view of health. They would not be inclined to separate physical from mental health. During face-to-face interviews, Anglo-Australians described an association between loneliness and depression and this was confirmed in the relationship found between loneliness and poorer mental health.

When interviewed face-to-face, both Chinese and Anglo-Australian seniors generally stated that they were not lonely and felt their health was good. Overall, two seniors scored in the very high range of loneliness and consented to face-to-face interviews. The Anglo-Australian senior in this category stated that she felt lonely and that her health was poor (depression and physical disability [with pain]). The Chinese senior stated that he did not feel lonely and was in good health. Of the seven Anglo-Australian seniors who scored in the high range of loneliness, at face-to-face interviews, two stated that they felt lonely. When interviewed face-to-face, one of the two Chinese seniors who scored in the high range of loneliness stated that he felt lonely. These results support the argument of the researcher that the Scale does not account for a person who scores as lonely but does not perceive him or herself to be lonely.

When discussing perceptions about loneliness and health, most Chinese seniors experienced difficulty in separating the two concepts. The Chinese concept of health as holistic, fluid and ever changing was evident, as Chinese seniors acknowledged that they felt loneliness to be part of overall health. Chinese seniors did not separate loneliness from health, supporting the notion that perceptions of health are culturally formed (Herfel, et al., 2007; Kirmayer & Young, 1998; Lin, 1980). The approach taken with this study, that is, to better understand the relationship between loneliness and health, was not easily comprehended by Chinese seniors. It is clear that the western conceptualisation of health (separation of mental and physical health) did not resonate with Chinese seniors. The Chinese concept of health as a holistic, balanced state had a strong influence on Chinese seniors, and this made it difficult to determine whether their poorer self-reported health was due to poor physical or poor mental health. At the time of the face-to-face interviews (12 months after the CATI survey), it is reasonable to assume that Chinese seniors health may have changed. They may have

participated in the face-to-face interviews feeling healthier, and this could have influenced their self-reported health. If this is the case, it is a limitation of the timing of the face-to-face interviews. However, with the Chinese view of health as constantly changing, it is also reasonable to conclude that face-to-face interviews at any time may have yielded different results to the CATI survey based on, among other things, the extent to which relationships in the home were harmonious. Additionally, the Chinese tradition of living in the 'middle' undoubtedly influenced their responses. Generally, they would not have rated their health as excellent because they would not have been interested in 'bragging' (Zhang & Baker, 2008). Finally, they may have perceived little difference between ratings of 'good' or 'fair'. Regardless, the overarching perception of Chinese seniors about their health was that it was dynamic and fluid. Based on the research reported in this thesis, Anglo-Australian seniors tended to perceive their health through a more static framework.

Quantitative data showed that compared to Anglo-Australian seniors, Chinese seniors were nearly three times more likely to self-report poorer health, and also reported worse health now than one year ago, but less overall bodily pain. Chinese seniors reported higher rates of osteoporosis, diabetes and hypertension, while Anglo-Australian seniors reported higher rates of arthritis, depression, cancer and obesity / overweight.

At face-to-face interviews, most of Chinese and Anglo-Australian seniors described their own health as good or excellent regardless of the number of medical conditions their doctor had diagnosed (as measured in the CATI survey). Health was conceptualised as functional (physical abilities and fitness), psycho-social (happiness, luck, positive attitude), and healthy living (eating well, exercising, not smoking). There was a strong emphasis placed by nearly all seniors on being responsible for their own health. In general, Chinese seniors felt there was a stronger relationship between physical and mental health than Anglo-Australian seniors, and also mentioned the importance of harmonious relationships as part of the connection between mental and physical health. Chinese seniors felt positive family relationships were integral to ageing well. The emphasis on positive family relations supports Fry and colleagues' (1997) cross cultural research (Project AGE) in which she found that Hong Kong Chinese mentioned family as central to successful ageing.

While quantitative results highlighted that Chinese seniors reported significantly less diagnosed depression than Anglo-Australian seniors, reasons why this is the case emerged during face-to-face interviews. It became clear that Chinese seniors perceived depression to

be part of health overall, and felt it could not be separated or described separately to 'health'. While this sample of Chinese seniors reported very low rates of depression, they also scored significantly higher on the 'down in the dumps' question. 'Down in the dumps' is a culturally loaded phrase, yet CATI survey interviewers did not note difficulty from Chinese seniors responding to the phrase. While a question may remain for the researcher about how meaningful this phrase was for Chinese seniors, Chinese seniors themselves did not report difficulty in understanding this phrase.

Overall, results may point to the stigmatisation of depression in Chinese culture and / or the lack of understanding about depression. Australians of Chinese speaking background have been found to have poor understandings of depression (Wong, et al., 2010), with culturally relevant beliefs a strong factor. If depression is not acknowledged but feeling 'down in the dumps' is (assuming the question was meaningful), there may be quite a high proportion of Chinese seniors living with unacknowledged and undiagnosed depression. Living with depression has an adverse impact on health, and may have contributed to the self-reporting of poorer health. Again, this supports the need for careful investigation into the nature of Chinese seniors' conceptualisation of health.

Self-reported health was assessed by the SF-36v2 Health Survey (Ware & Sherbourne, 1992), the most widely used self-reported health survey. It is a generic measure with eight health domains. Low scores across any of the physical healthy subscale questions mean poor functioning and poor health. Critiques of the SF-36v2 Heath Survey are similar to those of the shortened UCLA Loneliness Scale. The SF-36v2 Health Survey was constructed and tested originally within a western culture and based on western assumptions. Since its development, it has been translated into many languages, including written Chinese, and has been shown to be reliable and valid. This notwithstanding, it is not clear how familiar some of the concepts were to the Chinese seniors in this research. Questions had five responses and included 'excellent' as a possible response. With the Chinese tendency to appear 'in the middle', claiming health was excellent could be considered extreme (Zhang & Baker, 2008). Additionally, bi-lingual interviewers commented that the particular question asking whether there was an expectation that health would become worse, was not well received by Chinese seniors. Chinese seniors were confused about this question and felt it was 'negative'. Finally, there were no questions about health as it might relate to family. With family relationships such an integral part of the Chinese culture, a question about whether family

contributes to health could reveal significant differences between the self-reporting of health between Chinese and Anglo-Australian seniors.

The relationship between higher loneliness scores and poorer self-reported physical and mental health in Chinese seniors in this study is not unusual and is consistent with the literature. The relationship between higher loneliness scores and poorer self-reported mental health, but not poorer self-reported physical health in Anglo-Australian seniors is unusual and not consistent with the literature. The result may be due to living in an area of relative affluence for many years and having the capacity to access appropriate health care and community facilities that promote well-being.

Significant differences in health between Chinese and Anglo-Australian seniors were identified. However, attempting to interpret the results for Chinese seniors from the perspective of a Western biomedical model of health is problematic. Differences identified may be attributed to many factors, including living conditions during early life, distinct culturally related understandings of health and loneliness, and distinct culturally related concepts of aging. Importantly, perceptions of family interwoven throughout the entire range of factors, cannot be underestimated. There is little research-based data or understanding available about Chinese seniors living in Australia (Allotey, et al., 2002; Tsang, et al., 2004). There is a risk that identifying ethnicity and culture as key social determinants of health and wellbeing could typecast population groups along ethnic divisions, and disregard the importance in this context of individual thoughts, feelings and experiences. However, ethnicity and culture must be carefully considered in order to understand the significant role these concepts appear to play in the conceptualisation of health and loneliness.

Common factors of lifestyle, place, self-responsibility and relationships are important contributors to and supporters of health and successful ageing: A social determinants approach

Both Chinese and Anglo-Australian seniors perceived lifestyle to be an important contributor to health and perceived ‘place’ to be important in encouraging and supporting a healthy life. Both groups of seniors felt responsible for their health outcomes and acknowledged the importance of relationships for healthy outcomes. These themes are consistent with the social determinants of health integrative view of the factors that influence all aspects of living

and working (Dahlgren & Whitehead, 1991). This finding also supports the theory of successful ageing, in that the seniors in this research were generally engaged with life, were using their many resources to avoid disease / disability, and pursued high cognitive and physical function to remain healthy. Factors within these themes were seen as important by the seniors to building and maintaining health. Table 25 shows the integration of the common factors across the two models. Further discussion of how the factors are integrated across the social determinants of health framework and theory of successful ageing follows below.

Table 25 Common Factors

Factors	Social Determinants of Health	Successful Ageing
Lifestyle: Physical activity	✓ (Lifestyle)	✓ (High physical function)
Place	✓ (Environmental Conditions)	
Sense of Mastery / self responsibility	✓	✓ (High cognitive function)
Relationships	✓ (Social and Community Networks)	✓ (Engagement with life - maintaining relationships)

Lifestyle: Physical activity

As discussed in Chapter Three, factors such as physical activity that contribute to health fall within the Individual Lifestyle Factors sphere of the social determinants of health approach. Physical activity is also a major component of Successful Ageing, being incorporated into 'high physical function' (Rowe & Kahn, 1997).

In a systematic review of the relationship between physical activity and health, Reiner and colleagues found that physical activity had a positive long term influence on health (2013) Warburton and colleagues (2006) also found that there was a relationship between physical activity and health, going so far as to state that increasing physical activity and fitness would lead to improvement in health. McMurdo (2000) notes that well educated, affluent older

people who have adopted healthy habits (i.e., exercise, don't smoke, are at average weight) will, on average, live longer and healthier lives. She argues that regular physical activity is beneficial to health and a long life, with growth in muscle mass, slowing the rate of bone density loss, better balance and mental health all related to physical activity. She posits that seniors who undertake regular physical activity can *"rejuvenate their physical capacity by 10-15 years"* (p. 1149). Individual lifestyle factors such as physical activity within the Social Determinants of Health approach have long been accepted as beneficial to health.

When interviewed face-to-face, the importance of physical activity was clearly articulated by nearly all Chinese and Anglo-Australian seniors. While the amount of physical activity that seniors undertook was determined by their overall health, all seniors felt physical activity was important to living a longer and healthier life. Additionally, seniors described undertaking physical activity whether or not friends and / or family members were present. While the influence of social support on physical activity was not pursued in this research, the source of social support was identified differently by both groups - that is, friends were identified by Anglo-Australian seniors and family was identified by Chinese seniors. Based on the face-to-face interviews it is not clear how Anglo-Australian seniors came to accept the emphasis on physical activity, although Chinese seniors referred to the emphasis on physical activity in their upbringing. The general experience that both groups of seniors articulated during face-to-face interviews was that a variety of physical activities (group or solitary) contributed to good health. Research findings support the proposition that overall activity level is related to longer life, reduced functional decline and happiness (Menec, 2003). Menec noted that social activities (i.e., sports or games), solitary activities (i.e., reading, handwork hobbies, and music) and productive activities (i.e., light housework / gardening) were significantly related to happiness. Both Chinese and Anglo-Australian seniors enthusiastically participated in a range of social and solitary activities which they enjoyed and described as healthy behaviours.

Place

In the Social Determinants of Health approach, place refers to 'neighbourhood' and falls within the Cultural and Environmental Conditions sphere. Within the context of this research, place also refers to 'ageing in place'. The term 'ageing in place' originally described residents of aged care facilities, and their capacity to move from low care through to high care within the same residential facility (Australian Government Department of

Health, 2013). The term, however, has been applied more generally to include living independently in the community without the need to relocate due to issues associated with ageing (NSW Government Family & Community Services Ageing Disability & Home Care, 2013). Successful ageing does not refer specifically to place or 'ageing in place'. However, it is reasonable to propose that place / 'ageing in place' are prerequisites for successful ageing because of the relationship between health and safe / secure housing.

CATI survey questions about place found significant differences between Chinese and Anglo-Australian seniors in the number of years lived in their current home. Chinese seniors were two and a half times more likely than Anglo-Australian seniors to have lived in their current home less than 19 years, while Anglo-Australian seniors were nearly five times more likely than Chinese seniors to be living in their current home more than 30 years. Chinese seniors were also three times more likely than Anglo-Australian seniors to use public transport (bus). During face-to-face interviews, it became clear that most of the Chinese seniors were migrants to Australia, and had therefore not lived in Australia long enough to live in their current home more than 19 years. During face-to-face interviews, Anglo-Australian seniors described how they had specifically identified Manningham as a step up and away from a home in a lower socio-economic area. They perceived Manningham to be the final destination in their upward mobility journey.

Manningham is a relatively advantaged local government area well equipped with gyms and sporting facilities as well as parks and open spaces. Both groups of seniors praised the full range of excellent parks and open space available in their neighbourhoods. They felt the physical environment contributed to good health and included quiet streets with minimal pollution, close proximity to amenities, abundant foliage, friendly neighbours and infrastructure that encouraged walking. Chinese and Anglo-Australian seniors described how such neighbourhood characteristics encouraged and supported them to live a healthy life. The abundant supply of infrastructure promoting physical activity was well utilised by seniors and a number of them also identified the positive social aspects of such facilities. Such descriptions about Manningham as a place, support Frumkin's (2003) statement that *"members of the public increasingly value their health; consider the environment to be an important influence on health; and want to live, work and play in healthy environments"* (p.1452). Anglo-Australian seniors noted that they were financially secure, and able to join gyms, clubs and other activities that required payments. Phelan and colleagues (2004) argue

that the association between SES and good health is due to people of high SES using their resources purposely to benefit their health. This study, situated within the relatively advantaged local government area of Manningham, supports Phelan's argument. Glass and Balfour (2003) recommend that when looking for an association between health and living situations, a balanced review of the neighbourhood should include consideration of affluence along with poverty. These relatively advantaged seniors, living in a local government area identified by SEIFA indices as similarly advantaged, perceived that their resources (personal and neighbourhood) contributed to positive health outcomes regardless of self-reported health. The findings support research that place can support healthy lifestyles (Breeze, et al., 2005; House, et al., 1988; Kim, 2008; Wen, et al., 2003; Wight, et al., 2008).

Chinese seniors also felt there were many benefits to living in Manningham and one of these benefits was the Chinese seniors' clubs. They felt attendance at these clubs would offset any loneliness an individual might feel. This finding is not surprising given that during face-to-face interviews Chinese seniors, in general, discussed loneliness as a transitory state that could be offset by engaging in activities. While Anglo-Australian seniors did not mention social clubs during face-to-face interviews, they stated that Manningham was an area with many benefits and could not understand why anyone living in Manningham might feel lonely.

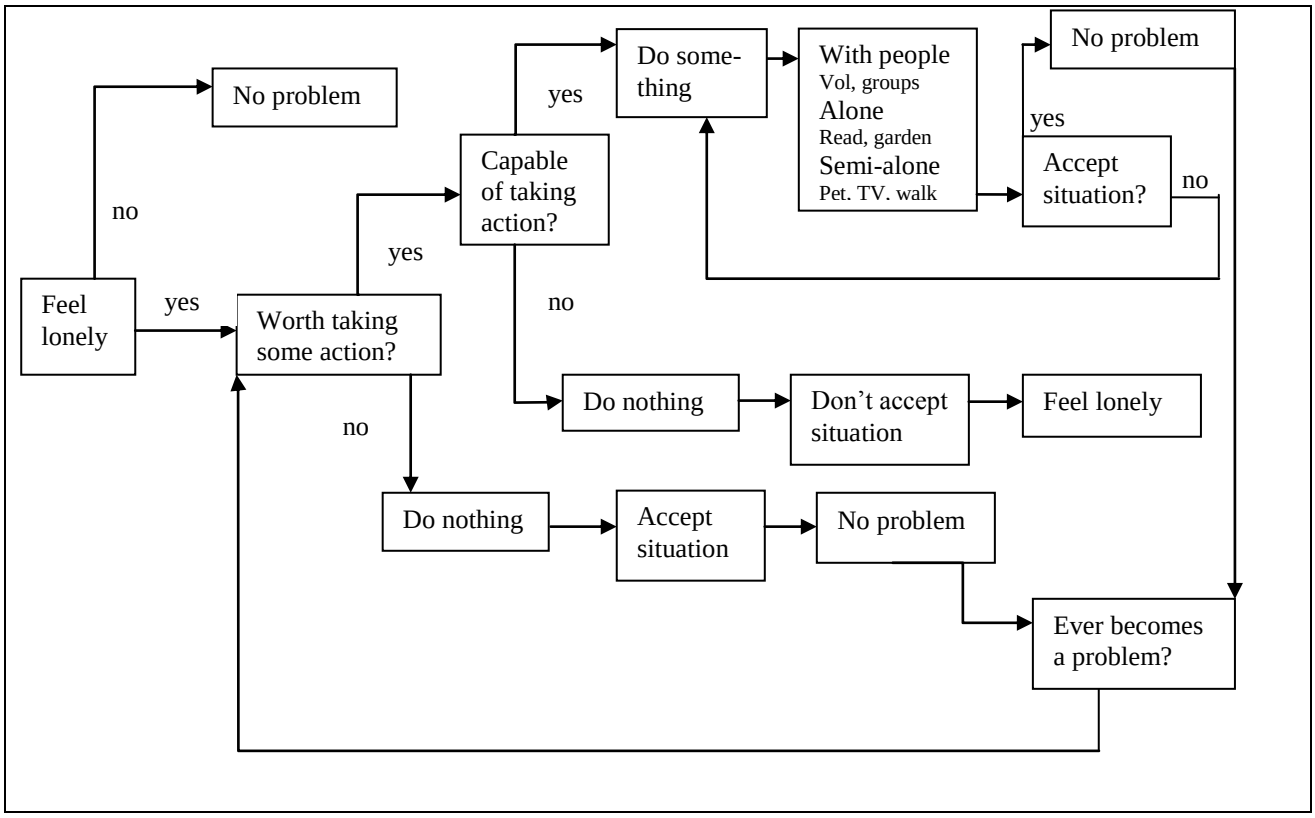
Unlike most of inner and middle Melbourne, no trains or tram-lines operate in Manningham. Public transport is limited to bus services. While the great majority of seniors participating in face-to-face interviews owned and drove cars, quantitative results showed that Chinese seniors were more likely to use buses than Anglo-Australian seniors. During face-to-face interviews, Chinese and Anglo-Australian seniors generally expressed the view that public transport was inadequate. A number of the seniors were very concerned about their ability to continue living in Manningham once they were no longer able to drive. They felt the impending loss of independence. A number of the Anglo-Australian seniors believed the only way they would be able to cope would be to move to different areas that were well resourced with public transport options. This finding supports research that effective and affordable transport is a factor that could decrease isolation and dependence in older people (Hiscock., Macintyre, Kearns, & Ellaway, 2002; Sitlington, 1999).

Sense of Mastery

As discussed in Chapter Three, sense of mastery falls within the social and community networks sphere of the social determinants of health approach. Mastery refers to the extent of control felt over one's life, provides a source of resilience, and is an effective coping mechanism that mediates stress (Pearlin & Schooler, 1978). Successful ageing incorporates a sense of mastery within the component - high cognitive and physical function. There were no CATI survey questions inquiring into sense of mastery, and therefore it was not possible for a sense of mastery to emerge during the quantitative data collection. However in face-to-face interviews, sense of mastery emerged as a strong theme across both Chinese and Anglo-Australian seniors. According to Perrig-Chiello (1999), "*people with higher perceived sense of control take greater responsibility for their health than those with lower perceived control"* (p. 85). Perrig-Chiello also found that older people perceived 'chance' to play a strong role in their perception of their state of health. Her findings were supported in this research. Although all seniors acknowledged the importance of a strong sense of control and taking responsibility for their health, they also acknowledged 'chance' in their health status. They maintained a fine balancing act on the continuum of control-chance. This was noted in face-to-face interviews where most seniors stated that they were quite healthy, but their good health may also be due to good luck. Gadalla (2009) argues that higher income predicts better health and more social support, which, in turn, predicts a higher sense of mastery. This research is consistent with Gadalla's findings. This was a group of relatively advantaged seniors engaging in many social activities. Sense of mastery was evident across both groups, even where health was considered poorer. A sense of personal responsibility for good health and ageing well appears to be consistent across many diverse cultures (Abdulrahim & Ajrouch, 2010; Lewis, 2010). Both Chinese and Anglo-Australian seniors who experienced poorer health did not feel excused from being responsible for continuing to try to achieve a good life outcome. All seniors, to varying degrees, discussed the importance of being responsible for health and loneliness *to the extent that this was possible*. While one senior in excellent health described the vigorous walking he regularly undertook as contributing to his good health, another senior in poor health described her regular trips to the supermarket as important to maintaining health and social contact.

The sense of mastery or responsibility described by both groups of seniors is evident in Figure 10, which illustrates the actions that seniors in this study felt should be taken if / when loneliness is acknowledged.

Figure 11 Action Model in Response to Perceived Loneliness



A number of decision points are evident in the model with the main one being that it is worth taking action to address loneliness. None of the seniors described themselves as not being capable of taking action, even when they self-reported poor health and / or very high feelings of loneliness. They, in fact, expressed negative judgments about those who did not take action to address their health and / or loneliness. Therefore, a contradiction surfaced throughout many face-to-face interviews with both Chinese and Anglo-Australian seniors. While seniors acknowledged that there were probably some seniors living in Manningham who felt they may not be capable of taking action, seniors equally commented that what those other seniors needed to do was talk to someone in order to manage their loneliness. In effect, the Chinese and Anglo-Australian seniors were so influenced by their internalisation of mastery and responsibility that they were unable to understand others without this sense of mastery or responsibility. Put bluntly, while the seniors acknowledged on a superficial level that some seniors may not be capable of taking action, they nonetheless stated these seniors

needed to take action. In general, seniors agreed that there was a degree of difficulty in approaching a friend or family member to discuss loneliness because it was a private matter, but they also stated that *it was a necessary action to take* to manage loneliness. As many of the seniors stated in a fairly matter of fact manner, it was *simply something you had to do*. Interestingly, this sense of mastery and responsibility was expressed by all seniors regardless of ethnicity, self-reported health status, loneliness score, education or income. This interesting result should not be considered surprising. Both Chinese and Anglo-Australian seniors were raised in cultures that valued self-reliance, hard work, self-control and overcoming hardship. Many seniors described their parents as overcoming very difficult circumstances, and they were raised to be as resourceful as their parents were. Loneliness was perceived as one more obstacle that needed to be overcome. This finding supports research that feeling in control of one's life factors strongly in successful ageing and is an important element for well-being, self-confidence, self-efficacy, and inner strength (Baltes & Baltes, 1986; Bandura, 1981; Brandtstadter & Galtes-Gotz, 1990; Lewis, 2010; Rowe & Kahn, 1987; Ryff, 1989; Tate, et al., 2003)

Both Chinese and Anglo-Australian seniors described loneliness as negative, something to be avoided, not to be talked about with others, undesirable, and revealing a weakness of character. These descriptions support the literature around stigma as undesirable differentness (Goffman, 1986), comprising embarrassment and emotional distress (Link & Phelan, 2001; Van Brakel, 2006). Seniors have been known to describe lonely people as needy and responsible for their loneliness, similar to descriptions of seniors with mental illness (Webb, et al., 2009). As Webb and colleagues (2009) argued, those blamed for their condition may be more stigmatised than those perceived as not responsible for their condition. Both Chinese and Anglo-Australian seniors blamed lonely people for feeling lonely and suggested that they needed to take responsibility for addressing their loneliness.

Those few seniors interviewed face-to-face who scored in the very high or high loneliness range commented that although they were not happy about feeling lonely, loneliness was an expression of who they are. Loneliness was a personality trait. They were clear in themselves about why they were lonely and appeared to have accepted their loneliness. They had, in effect, taken responsibility for their loneliness and appeared uninterested in changing anything to reduce their loneliness. Referring to the model in Figure 10, these seniors who perceived loneliness as part of their personality, felt lonely, but did not necessarily perceive

loneliness to be a problem for them. Therefore, they did not take actions to address their loneliness. When these seniors spoke about their feelings of loneliness during face-to-face interviews, they appeared to have considered who they were in relation to their loneliness for many, many years. They had eventually come to accept loneliness as an integral part of their being. They indicated that they had taken actions to reduce loneliness when they were younger; but their loneliness did not decrease. It was as if there was an acceptance of the inevitability of loneliness with this small group of seniors. They did not express the need to stay busy to fend off loneliness that was expressed or implied by other seniors.

Most of the seniors who scored in the low range of loneliness perceived that taking responsibility for loneliness meant reducing loneliness. This was not necessarily the experience of the seniors who felt lonely. The seniors who felt lonely also stated they did not tell others of their loneliness because it was a private part of their life. They stated they knew few people to whom they felt close enough to talk to about their loneliness.

Relationships

Relationships fall within the 'social and community networks' sphere of the Social Determinants of Health and are one of the three key components of Successful Ageing theory. While the type of relationship is not identified in either model, the findings of this thesis support the importance of the effect of different relationships for different cultural groups.

Chinese seniors reported significantly more contact with family, less contact with friends / neighbours and fewer people spoken to yesterday than Anglo-Australian seniors. Compared with Anglo-Australian seniors, Chinese seniors reported spending less time by themselves, socialising more with their families and socialising less with friends. Chinese seniors often talked about the other Chinese seniors they knew from activities outside the home, but they were not referred to as friends. This result with Chinese seniors does not support the growing trend in social network literature about the importance of significant others outside the family (García, Banegas, Pérez-Regadera, Cabrera, & Rodríguez-Artalejo, 2005; Glass, De Leon, Bassuk, & Berkman, 2006). With the traditional Chinese culture emphasising harmony and the proper conduct of one's life, socialising outside of the family has its own particular difficulties. The wrong impression should not be given to others in order to maintain dignity and respect. Friendships may cause stress for Chinese seniors as maintaining them requires a

delicate balancing act. Much further research is required with Chinese seniors to investigate how relationships outside the family influence loneliness and self-reported health within their cultural group. However, it is clear that extended family is still important for this group of Chinese seniors, regardless of acculturation. Consistent with the literature that supports the importance of significant others outside the family, a network of friends is important for Anglo-Australian seniors. However, regardless of the source of the relationships, both Chinese and Anglo-Australian seniors felt relationships were important contributors to good health.

Successful Ageing

The research was conducted in Manningham, a relatively advantaged local government area, where individual attention to ageing successfully appears to be valued by residents and local policy makers. The Manningham residents who participated in this research may arguably form a cohort that can demonstrate how Rowe and Kahn's (1997) theory of successful ageing - avoiding disease and disability, high functioning, and active engagement in life - can be enacted by well resourced seniors who are active participants in the ageing process.

This research examined Chinese and Anglo-Australian seniors who suggested that successful ageing or ageing well (that is being healthy, active, and connected to family and friends) is a combination of: access to affordable and convenient public transport, living in a healthy environment that promotes well-being and has many accessible health resources, being engaged in productive and meaningful work (paid or non-paid), exercising regularly, eating well, having stimulating hobbies and pastimes, having a supportive network of family and friends, having a positive outlook on life, feeling in control of life circumstances, and feeling financially secure. These results support findings that Chinese (but not Western groups) and other non-western lay definitions of successful ageing include the concept of family (Fry, et al., 1997; Hung, et al., 2010). While seniors acknowledged that the combination of attributes and activities listed above was important in order to age well, many of them did not possess the full complement of attributes and activities that they identified. Yet, in general, they described their personal qualities as ageing well. Their perceptions of why they were ageing well were based on the qualities they possessed and the activities they pursued. They approached ageing well from a 'can do' mentality and were able to focus on their capabilities and positive aspects of their lives. In general, younger seniors, that is 65-75 years of age, described ageing as 'in the far distance' and almost within their control. Seniors over the age

of 76 appeared to have accepted the immediacy of ageing and were grateful for their capabilities.

Chinese and Anglo-Australian seniors expressed a range of positive opinions about being healthy and growing older. They acknowledged the physical limitations of ageing, but also described the importance of activity and their desire to remain active and healthy for as long as possible. They also felt their neighbourhood contributed to positive health outcomes regardless of their self-reported health status. However, when these seniors are no longer able to drive, they will be faced with the challenge of continuing to live in an area with poor public transport. Many may be forced to relocate to neighbourhoods with accessible public transport.

Rowe and Kahn's (1997) theory of successful ageing was confirmed by the lives these seniors were living. They identified good health, engagement with life, and high cognitive and physical function as important to ageing well. While the theory of successful ageing has many critics and limitations, for this group of advantaged Chinese and Anglo-Australian seniors, the theory holds considerable explanatory power. The addition of a fourth aspect of the theory of successful ageing - 'a positive outlook' - would enhance the theory and would help to explain why seniors who do not possess all of the qualities identified by Rowe and Kahn as important to successful ageing, still rate themselves as ageing well. It is possible that Rowe and Kahn may have felt a positive outlook was part of high cognitive functioning, but this concept is not found explicit in their theory. Supporting Collings' (2001) argument that attitude is the main defining characteristic of successful ageing, the findings of this study confirm that a positive outlook is important to ageing well. Finally, the need for more culturally relevant research around successful ageing as proposed by Torres (1999) is strongly supported by this research.

Significance of the Methodology

This mixed methods study examined loneliness and health using quantitative measures, and then explored perceptions of loneliness and health. It sought to measure loneliness in Anglo-Australian and Chinese seniors using the UCLA Loneliness Scale, and then explore their perceptions of feeling lonely and healthy as described during face-to-face interviews. The approach adopted a mixed methods sequential explanatory design which consisted of

collecting and analysing CATI survey data in a quantitative phase (Phase One) followed by collecting and analysing face-to-face interview and focus group data in a qualitative phase (Phase Two). Phase Two was informed by and explored the results of Phase One. Therefore, the foundation of the research design was the quantitative phase.

The over-arching research question is: how do particular social determinants of health (cultural, environmental, social and individual lifestyle factors) influence loneliness and self-reported health in Chinese and Anglo-Australian seniors? Conceived as one study, the complexity of the over-arching research question incorporated quantitative hypotheses and qualitative questions. A mixed methods approach was appropriate given the context in which the research was undertaken because quantitative and qualitative knowledge and insights were both required to answer the research questions. As a result of adopting a mixed methods sequential explanatory design, a much better understanding of loneliness is gained because the UCLA Loneliness Scale is complemented with qualitative, face-to-face interviews. The insights gained from combining approaches could not have been gained using only one method.

When considering the rigour of this mixed methodology, Yin (2006) recommends that mixed methods research be integrated across five areas: research questions, units of analysis, samples for study, instrumentation and data collection methods, and analytic strategies (p. 42). While quantitative and qualitative approaches are separately defined methods, integrating mixed methods research across all five areas recommended by Yin results in a holistic study (Bazeley, 2009). Accordingly, this research study undertook to integrate quantitative and qualitative methods across the areas recommended by Yin. As argued by Yin (2006), the value in mixed methods research lies in its ability to synthesise and integrate quantitative and qualitative methods within a single study, rather than conduct multiple parallel studies. This research study integrated quantitative and qualitative methods beginning with the research question(s). The overarching single research question - "how do particular social determinants of health (cultural, environmental, social and individual lifestyle factors) influence loneliness and self-reported health in Chinese and Anglo-Australian seniors?' - was conceived as a single study.

Quantitative and qualitative data were collected within one consistent point of reference. That is, the units of analysis were Chinese and Anglo-Australian seniors over the age of 65 living in the City of Manningham. This follows Yin (2006), who argues that a consistent

point of reference produces a truly mixed methods study. Sampling was carefully considered with the qualitative interview sample nested within the broader quantitative survey sample. Data collection measures (CATI survey and face-to-face interviews) were distinct, yet pursued similar areas of enquiry (loneliness, health, and ethnicity). CATI survey questions were purposefully expanded for later face-to-face interviews to elicit the experience of participants in their own words. Analytic integration examined the relationships between ethnicity, loneliness and health in what Yin (2006) (p. 45) describes as 'counterpart' analyses. That is, different methodological techniques were employed in a similar manner to answer the research question(s). This integrated, mixed methods research demonstrates adherence to Yin's recommended procedures.

Conclusion

This thesis sought to determine whether there is a significant difference in self-reported health and loneliness in Chinese and Anglo-Australian seniors, and to explore the differences in experiences and perceptions between the two groups. The sequential mixed methods design that guided the research was briefly reviewed.

The main findings of the thesis were that the concept of loneliness is neither well defined nor measured; ethnicity and culture play a significant role in how seniors conceptualise loneliness and health; and common themes exist (irrespective of culture) that identify lifestyle, place, self-responsibility and relationships as important contributors to and supporters of health. The ability of the UCLA Loneliness Scale to accurately measure loneliness was questioned because some seniors who scored high on the Scale stated they did not feel lonely. Improved validity of the Scale may be achieved by following-up the administration of the Scale with a face-to-face interview. This may enhance understanding of why seniors answered the questions as they did.

The common themes identified in this thesis were consistent with successful ageing theory and the social determinants of health integrative view of the factors that influence all aspects of living and working. The relatively advantaged (and primarily homogeneous regarding socio-economic status) local government area of Manningham was described by seniors as encouraging and supporting them to live a healthy life primarily due to its high quality residential areas characterised by green open spaces, health promoting activities and friendly

neighbours. This thesis identifies a connection between health and 'place' and supports the link to both individual (who you are) and neighbourhood level (where you live) characteristics. All relationships and factors interact and are important when examining influences on health within the social determinants of health approach.

Seniors expressed a range of positive feelings about being healthy and growing older, and described the importance of activity for good health. Creating healthy and sustainable communities is the overarching aim of the social determinants of health approach. Research now supports a strong focus on physical activity improving health in general, and physical activity has been linked to disease prevention. As discussed in Chapter Two, researchers focussing on physical activity propose that it is one of the strongest predictors of functional health and successful ageing.

Self-appraisal or self-perception of successful ageing was not specifically identified by Rowe and Kahn when they developed their theory of Successful Ageing. Currently, however, there is increased emphasis on incorporating lay perspectives of ageing in the concept of successful ageing. The seniors in this study broadened the definitions of successful ageing and discussed the important of attitudes. The addition of a fourth aspect for the theory of successful ageing - 'a positive outlook' - is proposed as it would help incorporate the lay perspective of successful ageing. It would also help explain why seniors who may not be in good physical health still rate themselves as ageing well.

Chapter Eight presents the conclusions and policy implications of this thesis. Strengths and limitations of the thesis are presented and followed by suggestions for further research.

Chapter Eight – Conclusion and Policy Implications

Introduction

Chapter Seven discussed the main findings of the thesis about loneliness and health in Chinese and Anglo-Australian seniors living in Manningham. The theory of Successful Aging and the Social Determinants of Health framework were discussed in relation to the common themes that seniors identified as important contributors to and supporters of health. Sense of mastery or responsibility, in particular, was identified by both Chinese and Anglo-Australian seniors as important to managing loneliness, and for good health. This chapter presents strengths and limitations of the thesis, suggestions for future research, and implications for government policy.

Strengths of the Thesis

This cross-cultural research sought to contribute to understanding loneliness and health in Chinese and Anglo-Australian seniors living in Australia. It located the research within a framework informed by the social determinants of health and was guided by the theory of Successful Aging. This is an important area to investigate because there is little research about the influences of general social, cultural and environmental conditions on loneliness and health in older people, particularly in the Australian context. There is a lack of knowledge about how, in particular, to incorporate cultural practices and environmental influences to support successful ageing in older people. This represents a serious gap in the knowledge required to understand the similarities and differences between Chinese and Anglo-Australian conceptualisations of loneliness and health. With ethnic Chinese the largest growing non-Australian born people living in Victoria, their perceptions of loneliness and health are important and should inform the development and evaluation of policies and programs that concern them.

The aim of this research was achieved - that is, ‘to determine whether there is a significant difference in self-reported health and loneliness between Chinese and Anglo-Australian seniors, and to explore influences of social determinants of health on the experiences and

perceptions of the two groups'. The influence of ethnicity on self-reported health and loneliness was examined and a significant difference was found between perceptions of Chinese and Anglo-Australian seniors.

This thesis adds evidence to the body of knowledge concerning successful ageing across cultures. Loneliness and self-rated health are found to be influenced strongly by ethnicity and culture, and an important conceptual link between the theory of Successful Aging and the Social Determinants of Health framework is established.

This thesis identifies how two groups of relatively advantaged seniors conceptualise health and loneliness. Chinese seniors identify family as their key relationship and feel lonely when separated from family. Anglo-Australian seniors identify friends as their key relationship and feel lonely when separated from friends. This distinction is not measured using the UCLA Loneliness Scale. The lack of agreed definitions for loneliness is highlighted. Measuring loneliness across cultural groups using the UCLA Loneliness Scale is identified as problematic.

Rowe and Kahn identified three components to their theory of Successful Aging - avoiding disease and disability; engagement with life; and high cognitive and physical function. The addition of a fourth component to the theory of Successful Aging - 'a positive outlook' - is suggested to enhance the theory and help explain why seniors who do not possess all of the qualities identified by Rowe and Kahn as important to successful ageing, may still rate themselves as ageing well. Seniors identify a number of factors as important to ageing well including: lifestyle, place, self-responsibility and relationships that fit within the social and community networks influence of the Social Determinants of Health framework.

Understanding how this group of Anglo-Australian and Chinese seniors perceive their loneliness and health contributes to the body of knowledge around how the perception of successful ageing influences a healthy and happy life for seniors. This research provides evidence that the influences of cultural beliefs on the subjective interpretations of health and loneliness are not well understood and require further targeted and focused research. There is a significant difference between the implied feeling of loneliness as measured using the UCLA Loneliness Scale, and how, during face-to-face interviews, participants describe their feelings of loneliness. Of significance to the researcher is the Scale's lack of consideration of

cultural beliefs about loneliness. With no such cultural considerations, it is difficult to accept the Scale as an accurate measure of loneliness across cultures.

The mixed methods sequential explanatory research design used in this study is a strength because of it's rigour and also because of the contextual appropriateness. Combining quantitative and qualitative approaches was essential to understand research questions and provided much richer data than using only one method of research. The findings about conceptualisations of loneliness employing the UCLA Loneliness Scale were greatly enhanced with face-to-face interviews. Thesis findings would not have been possible without utilising this mixed methods approach. Combining results of data from both approaches produced findings equivalent to a whole greater than the sum of its parts (Woolley, 2009).

Limitations

The research had several general limitations concerning data collection. Firstly, seniors were contacted by land-line telephone, and this ruled out participation by seniors who did not have land-line telephones in their homes, seniors with silent phone numbers, homeless seniors, and seniors with disabilities who were unable to participate in a face-to-face interview. Those seniors without land-line telephones, who are homeless or who have a disability that prevented them from participating in an interview may feel lonelier, have poorer health and socialise less than the study participants. Seniors with silent phone numbers may have made a conscious decision that they were not interested in being contacted by unknown others. Secondly, the translation of the chronic health diseases / conditions, social networks and participation, and general demographic items were not put through the rigorous process of back translation, because of resource limitations for the research. Although no issues were raised by bi-lingual interviewers in this regard, lack of back translation may have impacted on how these particular questions were understood by Chinese seniors. Two questions about income and obese / overweight yielded inconsistent responses as some seniors felt the questions were insensitive or too difficult to answer. With seniors self-reporting health and loneliness, items were reported based on experience and memory, and there was no capacity to confirm self-report items about health with medical records or examination. Additionally, with the health questions read out to the seniors over the phone, there is the possibility of response bias, particularly with Chinese seniors who may have felt the need to appear healthier in order to 'save face' with the interviewer. Thirdly, the sampling for the

qualitative interviewing did not progress as intended. While initially only those seniors scoring in the high and very high range of loneliness scores were to be selected for face-to-face interviews, not enough seniors scored in those ranges. As a result, seniors who had scores in the mean and low ranges were interviewed face-to-face. Seven of the 15 Anglo-Australian seniors who scored in the high or very high range did not consent to face-to-face interviews. Thirteen of the 16 Chinese seniors who scored in the high or very high range on the Loneliness Scale did not consent to face-to-face interviews. Due to the low number of Chinese seniors consenting to face-to-face interviews, a focus group was held to validate the results of the seven Chinese seniors who participated in face-to-face interviews. Finally, data were coded and themes were identified by the researcher and discussed with her supervisors. While data consistency was assured using this method the data collection took place over a long period of time which meant a number of seniors did not remember participating in the CATI survey. Although seniors stated this did not make any difference to them, more seniors may have consented to face-to-face interviews if the CATI survey had been more recently completed.

A general limitation of the research was the researcher's inability to speak Mandarin or Cantonese. Chinese seniors appeared more comfortable with the interpreter than the researcher, and appeared to trust the interpreter to a greater extent than the researcher. It is possible that the researcher may have had more success recruiting Chinese seniors for face-to-face interviews had she been able to converse with Chinese seniors in their own language without the need for an interpreter.

Regardless of these limitations, valuable insight has been gained about the influences of ethnicity and culture on loneliness and health within the theory of successful ageing. Additional research, as described earlier in this chapter, is warranted to understand and explore the differences between these two ethnically diverse groups of seniors.

Suggestions for Future Research

The influences of family, religion, upbringing and language, among other factors, have not been considered in previous research with Chinese and Anglo-Australian seniors. Further research must consider these influences to understand the conceptualisations and perspectives

of these two groups of seniors. Suggestions for future research are presented within the context of better understanding conceptualisations of loneliness and health across cultures.

One of the major findings of this research is that the UCLA Loneliness Scale is not a sufficiently sensitive instrument to measure a complex and fluid state such as loneliness. Cultural concepts of the importance of family for the Chinese seniors were not considered in the development of the Scale. Based on the importance of family in Chinese culture, the researcher strongly believes that the results of the scores would have been different had a question been included exploring the concept of family and harmony. Future research using the Scale could be undertaken specifically with Chinese seniors to determine the extent to which family and culture define conceptualisations of loneliness. A review of the questions used in the Scale would be helpful in uncovering significant differences in conceptualisations of loneliness. Further research with Chinese seniors is also warranted to understand whether living with family members is protective against loneliness.

Following up administration of the Scale with a face-to-face interview would contribute to better understanding what loneliness means to individuals. Without more in-depth understanding of the multi-dimensional nature of loneliness, various perceptions of loneliness and the influences of culture, the Scale cannot be considered an accurate 'measure' of loneliness.

To compare and contrast findings, it would be useful to conduct further research with Chinese and Anglo-Australian seniors living in an area of lower socio-economic status. When considering the cultural and environmental influences of the social determinants of health, results of further research may differ significantly from this study, particularly if limited financial resources are identified as important to loneliness and ageing well.

Throughout this thesis, loneliness is examined as a uni-dimensional experience. However, further research is indicated for the group of seniors in this study using a scale such as the de Jong Loneliness Scale which measures loneliness as a multi-dimensional phenomenon rather than a uni-dimensional phenomenon. The use of a multi-dimensional scale may help to determine whether seniors would score in the same range(s) of loneliness regardless of how loneliness is conceptualised.

The findings suggest that additional research is necessary to identify the differences between Chinese and Anglo-Australian conceptualisations of health in general. The findings of this

thesis are consistent with the literature that loneliness is a universal phenomenon, however the experience of loneliness differs across cultures and this requires further investigation. While this thesis identifies significant differences between the two groups, further research may uncover how those differences in conceptualisations manifest in actual self-reported physical and mental health.

Implications for Government

This study commenced in 2006 while the researcher was working in local government aged care services. The emphasis in local government on 'healthy', 'positive', 'active', 'successful' ageing was strong during 2006 and continues to grow. The Municipal Association of Victoria (MAV) (2013), the legislated peak body for Victoria's 79 local governments, provides advice on a wide range of matters to local governments. In 2005, the Victorian Office of Senior Victorians in the Department of Planning and Community Development funded the MAV to work with a number of local governments in the field of ageing. The *MAV COTA Positive Ageing In Local Communities Project* (Project Partnerships, 2009) in particular, encouraged local governments to address positive ageing issues and provide good practice resources. With 79 local governments involved in developing positive ageing strategies and / or plans, by the end of the project, 53 local governments reported completing their plans, 13 reported their plans commenced and were to be completed during 2009, seven planned to commence work in 2008-2009 and to be completed in 2009, and six reported positive ageing was not in a planning priority (Project Partnerships, 2009). In the development of the plans, Councils engaged more than 10,700 older people. However it is not stated how many of these older people were from Chinese (or other culturally and linguistically diverse) backgrounds. The evaluation report highlighted that:

> *'Real engagement with older people has occurred, however this has not occurred equally with all groups of older people. There is recognition that different approaches to engagement are needed if those groups which are typically hard to reach or who are members of minority communities are to be engaged and enabled to fully participate'* (Project Partnerships, 2009) (p.78).

While progress is being made in Victorian local government, a whole of government approach to healthy ageing is required. A broad approach to ageing policy focussing on

healthy ageing would serve older people well. The previous Australian (Labor Party) government's aged care reform package - 'Living Longer Living Better' - "*involves a comprehensive 10 year plan to reshape aged care and build a better, fairer and more nationally consistent aged care system"* (Australian Government Department of Health and Ageing, 2012). Although it is unclear how the newly elected Australian Government (Liberal National Party coalition) will address ageing policy, it is worth considering the previous policy, as it marked a significant change in approach by placing older people at the centre through a consumer directed care approach, potentially giving older people more choice in the services and care they received.

Part of the 'Living Longer Living Better' package includes the 'National Ageing and Aged Care Strategy for People from Culturally and Linguistically Diverse (CALD) Backgrounds'. The Government explained that this strategy will help to inform it to respond to the needs and requirements of older people from CALD backgrounds as well as better support the aged care sector to deliver care that is sensitive and appropriate. The majority of actions in this strategy and the 'Living Longer Living Better' package are aimed at providing culturally appropriate aged care. While this is to be commended, there is little evidence of policy development around successful ageing or incorporating social determinants of health into ageing policies.

Supporting 'Living Longer Living Better' is the Australian Government Department of Health Aged Care Service Improvement and Healthy Ageing Grants Fund. The Fund's primary objective was to strengthen the capacity of the health and aged care sectors to deliver high quality aged care, and to promote healthy ageing. Activities funded were to address existing challenges such as dementia, providing support for people with dementia, their families and carers, staff who provide aged care services and service providers, and includes the National Dementia Helpline. Under this Fund, other activities that were to be funded included (but were not limited to) information, awareness, prevention and early intervention activities; culturally appropriate education and support; education and training; and building staff capacity in aged care services so that they gain increased knowledge and confidence in understanding the needs of all people in their care. Again, while these activities are commendable, they are aged care related rather than policy related. There is a gap in the development of healthy ageing policy. The new Australian Government has moved the ageing portfolio away from health to the new department of Social Services (Australian Government Department of Health, 2013). It remains to be seen if this new home will serve

the broad health and well being needs and aspirations of older people. The focus of the new Government's election policy was aged care, care needs, accreditation and dementia research with little attention to broader healthy ageing approaches (Liberal Party of Australia, 2013).

The findings of this thesis provide valuable insight into the differences between Chinese seniors and Anglo-Australian seniors which would be helpful to governments in the development and implementation of successful / healthy/ active / positive ageing plans. Plans should be linked to social determinants of health to provide the best possible outcomes for older people. Consulting with older people from culturally and diverse backgrounds and considering different cultural conceptualisations of ageing would improve the planning and policy development for all older people. Minority groups are often referred to as 'hard to reach' members of society. Yet, acknowledging the differences in conceptualisations of health and healthy ageing by Chinese seniors (and seniors from other culturally diverse backgrounds) may significantly improve understanding of how to more fully engage the Chinese senior community. It is suggested that specific successful / healthy / active ageing policies be developed by governments that link to social determinants of health.

Summary

This thesis makes a significant contribution to understanding the role of cultural practices in conceptualisations of loneliness and health in Chinese seniors living in Australia. It also provides evidence that while there are similarities, loneliness and health are interpreted differently between Chinese and Anglo-Australian seniors and that these differences in interpretation lead to differences in perceptions about loneliness and health. This thesis is an important contribution to concepts of loneliness and health, and how successful ageing is conceptualised across relatively advantaged Chinese and Anglo-Australian seniors. The findings contribute to the health promotion and successful ageing discourses on the influences of culture on living productive and healthy lives. The findings reported in this thesis do not support the UCLA Loneliness Scale as a valid cross cultural instrument, nor the proposition that loneliness is a uni-dimensional phenomenon. This thesis proposes that loneliness and health can be more fully understood when contextualised within cultural perspectives. Further research is warranted and will build on the findings. In-depth conversations with Chinese and Anglo-Australian seniors living in Australia about their cultural beliefs, traditions and family practices, will contribute to better understanding how

these influences shape their conceptualisations about loneliness, health and ageing. Extended family is still important for Chinese seniors, regardless of acculturation and these findings should be considered when working with Chinese senior migrants to ensure productive and healthy lives are optimised.

References

Abdulrahim, S., & Ajrouch, K. (2010). Social and Cultural Meanings of Self-Rated Health: Arab Immigrants in the United States. *Qualitative Health Research, 20*(9), 1229-1240. doi: 10.1177/1049732310371104.

Abraham, J. D., & Hansson, R. O. (1995). Successful Aging at Work: An Applied Study of Selection, Optimization, and Compensation Through Impression Management. *Journal of Gerontology: Psychological Sciences, 50B*(2), 94-104. doi: 10.1093/geronb/50B.2.P94.

Achenbaum, W. A. (2009). A Metahistorical Perspective on Theories of Aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of Theories of Aging* (pp. 25-38). New York: Springer Publishing Company.

Adler, P. A., & Adler, P. (1987). *Membership Roles in Field Research*. Thousand Oaks: Sage Publications, Inc.

Allotey, P., Manderson, L., & Reidpath, D. D. (2002). Addressing cultural diversity in Australian health services. *Health Promotion Journal of Australia, 13*(2), 29-33.

Alonso, J., Buron, A., Bruffaerts, R., He, Y., Posada-Villa, J., Lepine, J.-P., et al. (2008). Association of perceived stigma and mood and anxiety disorders: results from the World Mental Health Surveys. *Acta Psychiatrica Scandinavica, 118*(4), 305-314.

Alpass, F., & Neville, S. (2003). Loneliness, health and depression in older males. *Aging and Mental Health, 7*(3), 212-216.

Ameredia. (2012). Asian American Statistics Retrieved 5 June 2013, from http://www.ameredia.com/resources/demographics/asian_american.html.

American Psychiatric Association. (2012). Diagnostic and Statistical Manual of Mental Disorders DSM-IV-TR Fifth Edition (Text Revision), from http://www.psychiatry.org/practice/dsm/dsm5.

Ames, R. T. (2001). Introduction. In H. Giskin & B. S. Walsh. (Eds.), *An Introduction to Chinese Culture through the Family* (pp. 1-8). Albany, NY: State University of New York Press.

Anderson, C. A. (1999). Attributional Style, Depression, and Loneliness: A Cross-Cultural Comparison of American and Chinese Students. *Personality And Social Psychology Bulletin, 25*(4), 482-499.

Andrews, G., Clark, M., & Luszcz, M. (2002). Successful Aging in the Australian Longitudinal Study of Aging: Applying the MacArthur Model Cross–Nationally. *Journal of Social Issues, 58*(4), 749-765. doi: 10.1111/1540-4560.00288.

Angus, J., & Reeve, P. (2006). Ageism: A Threat to "Aging Well" in the 21st Century *Journal of Applied Gerontology, 25*(2), 137-152. doi: 10.1177/0733464805285745.

Anstey, K. J., Butterworth, P., Windsor, T. D., Burns, R., Sargent-Cox, K., von Sanden, C., et al. (2007). The value of comparing health outcomes in cohort studies: An example of self-rated health in seven studies including 79,653 participants. *Australasian Journal on Ageing, 26*(4), 194-200. doi: 10.1111/j.1741-6612.2207.00261.x.

Arendt, J. N. (2005). Income and "Outcomes" for Elderly: Do the Poor have A Poorer Life? *Social Indicators Research, 70*(3), 327-347.

Ashida, S., & Heaney, C. A. (2008). Differential Associations of Social Support and Social Connectedness With Structural Features of Social Networks and the Health Status of Older Adults. *Journal of Aging and Health, 20*(7), 872-893. doi: 10.1177/0898264308324626.

Atchley, R. C. (1989). A Continuity Theory of Normal Aging. *The Gerontologist, 29*(2), 183-190. doi: 10.1093/geront/29.2.183.

Australian Bureau of Statistics. (2007). 3302.0 - Deaths, Australia, 2006. Latest ISSUE Released at 11.30 AM (CANBERRA TIME) 09/11/2007 (pp.96). Canberra.

Australian Bureau of Statistics. (2008). 2006 Census Community Profile Series : Manningham (C) (Local Government Area), LOCATION CODE: LGA24210 STATE: VIC Latest ISSUE Released at 11:30 AM (CANBERRA TIME) 29/02/2008. Retrieved 11 May 2008, from http://www.censusdata.abs.gov.au/ABSNavigation/prenav/ViewData?&action=404&documentproductno=LGA24210&documenttype=Details&tabname=Details&areacode=LGA24210&issue=2006&producttype=Community%20Profiles&&producttype=Community%20Profiles&javascript=true&textversion=false&navmapdisplayed=true&breadcrumb=LPD&&collection=Census&period=2006&producttype=Community%20Profiles&#Expanded%20Community%20Profile.

Australian Bureau of Statistics. (2011). Census of Population and Housing Retrieved 5 June 2013, from http://www.abs.gov.au/census.

Australian Bureau of Statistics. (2012). 2071.0 - Reflecting a Nation: Stories from the 2011 Census, 2012–2013 *Cultural Diversity in Australia* Retrieved 27 March 2013, from http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2071.0main+features902012-2013.

Australian Bureau of Statistics. (2013a). 2011 Census QuickStats. All people - usual residents. Retrieved LATEST ISSUE Released at 11:30 AM (AEST) 28/03/2013, from http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/0.

Australian Bureau of Statistics. (2013b). 2011 Census QuikStats All people - usual residents Manningham (C) Retrieved LATEST ISSUE Released at 11:30 AM (AEST) 28/03/2013, from http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/LGA24210?opendocument&navpos=220.

Australian Bureau of Statistics. (2013c). 2011 QuickStats All people - usual residents Victoria Retrieved LATEST ISSUE Released at 11:30 AM (AEST) 28/03/2013, from http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/2?opendocument&navpos=220.

Australian Communications and Media Authority. (2009). *Convergence and Communications Report 1: Australian household consumers' take up and use of voice communications services*. Retrieved from http://www.acma.gov.au/webwr/_assets/main/lib100068/convergence_comms_rep-1_household_consumers.pdf.

Australian Department of Health and Ageing. (2013). Productive Ageing for Older Australians Retrieved 6 June 2013, from http://www.health.gov.au/internet/ministers/publishing.nsf/Content/mr-yr13-mb-mb024.htm.

Australian Government. (2002). Australia's National Research Priorities and their Associated Priority Goals Retrieved 6 June 2013, from http://www.innovation.gov.au/Research/Pages/AustraliasNationalResearchPrioritiesandGoals.aspx.

Australian Government Department of Health. (2013), from http://www.health.gov.au/

Australian Government Department of Health and Ageing. (2012), from http://www.livinglongerlivingbetter.gov.au/

Australian Institute of Health and Welfare and Office for an Ageing Australia. (2003). Stocktake of Australian Ageing Research and Policy Initiatives, Background paper to the Framework for an Australian Ageing Research Agenda 2003. Working paper. Retrieved 6 June 2013, from http://www.aro.gov.au/documents/

Australian Local Government Association. (2006). Age-friendly Built Environments - Opportunities for Local Government. Deakin, ACT.

Australian Local Government Association. (2007). Ageing Awareness and Action Survey Report *Local Government Population Ageing Action Plan 2004-2008* (pp. 45). Deakin, ACT.

Baker, J. (1958). The unsuccessful aged. *Journal of the American Geriatrics Society, 7*, 570-572.

Baker, J., Meisner, B. A., Logan, A. J., Kungl, A.-M., & Weir, P. (2009). Physical Activity and Successful Aging in Canadian Older Adults. *Journal of Aging & Physical Activity, 17*(2), 223-235.

Balfour, J. L., & Kaplan, G. A. (2002). Neighborhood Environment and Loss of Physical Function in Older Adults: Evidence from the Alameda County Study. *American Journal of Epidemiology, 155*(6), 507-515. doi: 10.1093/aje/155.6.507.

Baltes, M. M., & Baltes, P. B. (1986). *The psychology of control and aging.* Hillsdale: Lawrence Erlbaum.

Baltes, P. B. (1987). Theoretical Propositions of Life-Span Developmental Psychology: On the Dynamics Between Growth and Decline. *Developmental Psychology September, 23*(5), 611-626.

Baltes, P. B. (1997). On the Incomplete Architecture of Human Ontogeny: Selection, Optimization, and Compensation as Foundation of Developmental Theory. *American Psychologist April, 52*(4), 366-380.

Baltes, P. B., & Baltes, M. M. (1990). *Successful Aging: Perspectives from the behavioral sciences*. Cambridge: Cambridge University Press.

Bandura, A. (1981). Self-referent thought: A developmental analysis of self-efficacy. In J. H. Flavell & L. Ross (Eds.), *Social cognitive development: Frontiers and possible futures* (pp. 200-239). Cambridge: Cambridge University Press.

Barefoot, J. C., Grønbæk, M., Jensen, G., Schnohr, P., & Prescott, E. (2005). Social Network Diversity and Risks of Ischemic Heart Disease and Total Mortality: Findings from the Copenhagen City Heart Study. *American Journal of Epidemiology, 161*(10), 960.

Barg, F. K., Huss-Ashmore, R., Wittink, M. N., Murray, G. F., Bogner, H. R., & Gallo, J. J. (2006). A Mixed-Methods Approach to Understanding Loneliness and Depression in Older Adults. *The Journals of Gerontology, 61B*(6), S329-S339.

Bazeley, P. (2009). Editorial: Integrating Data Analyses in Mixed Methods Research. *Journal of Mixed Methods Research, 3*(3), 203-207. doi: 10.1177/1558689809334443.

Beckman, L. J. (1981). Effects of social interaction and children's relative inputs on older women's psychological well-being. *Journal of Personality & Social Psychology, 41*(6), 1075-1086.

Bengtson, V. L., Gans, D., Putney, N. M., & Silverstein, M. (Eds.). (2009). *Handbook of Theories of Aging* (2nd ed.). New York: Springer Publishing Company.

Berges, I.-M., Dallo, F., DiNuzzo, A., Lackan, N., & Weller, S. C. (2006). Social Support: A Cultural Model. *Human Organization, 65*(4), 420-429.

Berkman, C. S., & Gurland, B. J. (1998). The Relationship among Income, other Socioeconomic Indicators, and Functional Level in Older Persons. *Journal of Aging and Health, 10*(1), 81-98. doi: 10.1177/089826439801000105.

Berkman, L. F., & Syme, L. (1979). Social Networks, Host Resistance, and Mortality: A Nine-Year Follow-Up Study of Alameda County Residents. *American Journal of Epidemiology, 109*(2), 186-204.

Beydoun, M. A., & Popkin, B. M. (2005). The impact of socio-economic factors on functional status decline among community-dwelling older adults in China. *Social Science & Medicine, 60*(9), 2045-2057.

Bishop, B. (1999). *The National Strategy for an Ageing Australia: Healthy ageing discussion paper*. Canberra: Commonwealth of Australia.

Blaxter, M. (1990). *Health and Lifestyles*. London: Routledge.
Blaxter, M. (2007). *Health*. Cambridge: Polity Press.
Blazer, D. G. (2006). Successful Aging. *The American Journal of Geriatric Psychiatry, 14*(1), 2.
Blignault, L., Ponzio, V., Rong, Y., & Maurice, E. (2008). A qualitative study of barriers to mental health services utilization among migrants from mainland China in South-East Sydney. *International Journal of Social Psychiatry, 54*, 180 - 190.
Boeije, H. (2010). *Analysis in Qualitative Research*. London: Sage Publications.
Boomsma, D. I., Wilemsen, G., Dolan, C. V., Hawkley, L. C., & Cacioppo, J. T. (2005). Genetic and Environmental Contributions to Loneliness in Adults: The Netherlands Twin Register Study. *Behavior Genetics, 35*(6), 745-752.
Booth, R. (2000). Loneliness as a Component of Psychiatric Disorders. *Medscape General Medicine, 2*(2).
Bowling, A. (1993). The Concepts of Successful and Positive Ageing. *Family Practice, 10*(4), 449-453. doi: 10.1093/fampra/10.4.449.
Bowling, A. (2006). Lay perceptions of successful ageing: findings from a national survey of middle aged and older adults in Britain. *European Journal of Ageing, 3*(3), 123-136. doi: 10.1007/s10433-006-0032-2.
Bowling, A. (2008). Enhancing later life: How older people perceive active ageing? *Aging & Mental Health, 12*(3), 293-301. doi: 10.1080/13607860802120979.
Bowling, A., & Dieppe, P. (2005). What Is Successful Ageing And Who Should Define It? *BMJ: British Medical Journal, 331*(7531), 1548-1551. doi: 10.2307/25455762.
Bowling, A., & Iliffe, S. (2006). Which model of successful ageing should be used? Baseline findings from a British longitudinal survey of ageing. *Age and Ageing, 35*, 607-614. doi: 10.1093/ageing/afl100.
Bowling, A., & Iliffe, S. (2011). Psychological approach to successful ageing predicts future quality of life in older adults. *Health and Quality of Life Outcomes, 9*(1), 13-13.
Brandtstadter, J., & Galtes-Gotz, B. (1990). Personal control over development and quality of life perspectives in adulthood. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging. Perspectives from the behavioral science* (pp. 197-224). Cambridge: Cambridge University Press.
Brandtstadter, J., & Rothermund, K. (1994). Self-Percepts of Control in Middle and Later Adulthood: Buffering Losses by Rescaling Goals. *Psychology and Aging, 9*(2), 265-273.
Breeze, E., Jones, D. A., Wilkinson, P., Bulpitt, C. J., Grundy, C., Latif, A. M., et al. (2005). Area deprivation, social class, and quality of life among people aged 75 years and over in Britain. *International Journal of Epidemiology, 34*(2), 276-283. doi: 10.1093/ije/dyh328.
Breeze, E., Sloggett, A., & Fletcher, A. E. (1999). Socioeconomic status and transitions in status in old age in relation to limiting long-term illness measured at the 1991 Census: Results from the UK Longitudinal Study. *European Journal of Public Health, 9*(4), 265-270. doi: 10.1093/eurpub/9.4.265.
Browning, C., & Thomas, S. (2007). Definition and Predictors of Successful Ageing and Related Concepts (pp. 87). Melbourne: Monash Institute of Health Services Research, Monash University.
Browning, C., Zeqi, C., Thomas, S., & Yang, H. (2011). Cultural conceptualisations of ageing in Chinese elders: Healthy Ageing Research Unit Report, Monash University.
Bryant, L., Corbett, K., & Kutner, J. (2001). In their own words: A model of healthy ageing. *Social Science and Medicine, 53*, 927-941.

Burns, R. B. (2000). *Introduction to Research Methods* (4th ed.). London: Sage Publications Ltd.
Butler, R. N. (1974). Successful aging. *Mental Health, 58*, 6-12.
Butler, R. N., & Gleason, H. P. (1985). *Productive Aging: Enhancing Vitality in Later Life*. New York: Springer.
Butler, R. N., & Schechter, M. (1995). Productive aging. In G. L. Maddox (Ed.), *The encyclopedia of aging* (pp. 763-764). New York: Springer.
Cacioppo, J. (2008). John Cacioppo on Loneliness. *Love, Sex and Happiness* Retrieved 5 June 2009, from http://bigthink.com/ideas/5668.
Cacioppo, J., Ernst, J., Burleson, M., & et al. (2000). Lonely traits and concomitant physiological processes: the MacArthur social neuroscience studies. *International Journal of Psychophysiology, 35*, 143-154.
Cacioppo, J., Hawkely, L. C., & Berntson, G. G. (2003). The Anatomy of Loneliness. *Current Directions in Psychological Science, 12*(3), 71-74.
Cacioppo, J., Hughes, M. E., Waite, L. J., Hawkley, L. C., & Thisted, R. A. (2006). Loneliness as a Specific Risk Factor for Depressive Symptoms: Cross-Sectional and Longitudinal Analyses. *Psychology and Aging, 21*(1), 140-151.
Cai, L. (2008). Be Wealthy to Stay Healthy: An Analysis of Older Australians Using the HILDA Survey *Melbourne Institute Working Paper Series Working Paper No. 8/08* (Vol. Working Paper No. 8/08, pp. 21). Melbourne: Melbourne Institute of Applied Economic and Social Research.
Campbell, C., & Deacon, H. (2006). Unravelling the Contexts of Stigma: From Internalisation to Resistance to Change. *Journal of Community & Applied Social Psychology, 16*(6), 411-417.
Carey, M. A. (1995). Comment: Concerns in the Analysis of Focus Group Data. *Qualitative Health Research, 5*(4), 487-495. doi: 10.1177/104973239500500409.
Carey, M. A., & Smith, M. W. (1994). Capturing the Group Effect in Focus Groups: A Special Concern in Analysis. *Qualitative Health Research, 4*(1), 123-127. doi: 10.1177/104973239400400108.
Carpenito-Moyet, L. J. (2006). *Nursing diagnosis: Application to Clinical Practice* (11 ed.). Philadelphia: Lippincott Williams, & Wilkins.
CATI Technical Reference Group National Public Health Partnership. (2001). *Population Health Monitoring and Surveillance: CATI Information Question and Module Development*. Canberra.
Cattan, M., White, M., Bond, J., & Learmouth, A. (2005). Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Ageing and Society, 25*, 41-67.
Cavan, R., Burgess, E. W., Havighurst, R. J., & Goldhamer, H. (1949). *Personal Adjustment in Old Age*. Chicago: Social Science Research Associates.
Chandola, T., & Jenkinson, C. (2000). Validating Self-rated Health in Different Ethnic Groups. *Ethnicity & Health, 5*(2), 151 - 159.
Chappell, N. L. (2003). Correcting Cross-Cultural Stereotypes: Aging in Shanghai and Canada. *Journal of Cross-Cultural Gerontology, 18*(2), 127-147. doi: 10.1023/a:1025156501588.
Chappell, N. L., & Kusch, K. (2007). The Gendered Nature of Filial Piety — A Study among Chinese Canadians. *Journal of Cross-Cultural Gerontology, 22*(1), 29-45.
Chappell, N. L., & Lai, D. (1998). Health care service use by Chinese seniors in British Columbia, Canada. *Journal of Cross-Cultural Gerontology, 13*(1), 21-37.
Chong, A. M., Ng, S., Woo, J., & Kwan, A. (2006). Positive ageing: The views of middle-aged and older adults in Hong Kong. *Ageing and Society, 26*, 243-265.

Chou, K. L., & Chi, I. (2004). Childlessness and psychological well-being in Chinese older adults. *International Journal of Geriatric Psychiatry, 19*(5), 449-457.
Chou, K. L., & Mak, K. Y. (1998). Attitudes to mental patients among Hong Kong Chinese: A trend study over two years. *International Journal of Social Psychiatry, 44*, 215 - 224.
Chow, N. (1996). Population Aging in Asian Chinese Communities. In V. Minichiello, N. Chappell, H. Kendig & A. Walker (Eds.), *Sociology of Aging International Perspectives* (pp. 453-458). Melbourne: International Sociological Association.
City of Manningham Population Forecast. (2013) Retrieved 2 June 2013, from http://www.manningham.vic.gov.au/
Cohen-Mansfield, J., & Parpura-Gill, A. (2007). Loneliness in older persons: a theoretical model and empirical findings. *International Psychogeriatrics, 19*(02), 279-294. doi: 10.1017/S1041610206004200.
Collings, P. (2001). ``If you got everything, it's good enough": perspectives on successful aging in a Canadian Inuit community. *Journal of Cross-Cultural Gerontology, 16*(2), 127-155. doi: 10.1023/a:1010698200870.
Conrad, P., & Barker, K. K. (2010). The Social Construction of Illness. *Journal of Health and Social Behavior, 51*(1 suppl), S67-S79. doi: 10.1177/0022146510383495.
Cornman, J. C., Goldman, N., Glei, D. A., Weinstein, M., & Chang, M.-C. (2003). Social Ties and Perceived Support: Two Dimensions of Social Relationships and Health among the Elderly in Taiwan. *Journal of Aging and Health, 15*(4), 616-644. doi: 10.1177/0898264303256215.
Cornwell, E. Y., & Waite, L. J. (2009). Social Disconnectedness, Perceived Isolation, and Health among Older Adults. *Journal of Health and Social Behavior, 50*(1), 31.
Cosco, T. D., Prina, A. M., Perales, J., Stephan, B. C. M., & Brayne, C. (2013). Lay perspectives of successful ageing: a systematic review and meta-ethnography. *BMJ Open, 3*(6). doi: 10.1136/bmjopen-2013-002710.
Creecy, R. F., Berg, W. E., & Wright, R. (1985). Loneliness Among the Elderly: A Causal Approach. *Journal of Gerontology, 40*(4), 487-493.
Creswell, J. W., Clark, V. L. P., Gutmann, M. L., & Hanson, W. E. (2003). Advanced Mixed Methods Research Designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 209-240). Thousand Oaks: Sage Publications Inc.
Cumming, E., & Henry, W. (1961). *Growing Old: The Process of Disengagement*. New York: Basic Books.
Cummins, S., Curtis, S., Diez-Roux, A. V., & Macintyre, S. (2007). Understanding and representing `place' in health research: A relational approach. *Social Science & Medicine, 65*(9), 1825-1838.
Dahl, E., & Birkelund, G. E. (1997). Health inequalities in later life in a social democratic welfare state. *Social Science & Medicine, 44*(6), 871-881.
Dahlgren, G., & Whitehead, M. (1991). Policies and Strategies to Promote Social Equity in Health. Stockholm: Institute for Future Studies.
Dalgaardy, C.-J., & Strulik, H. (2010). Optimal Aging and Death. *Harvard Initiative for Global Health. The Program on the Global Demography of Aging* Retrieved 6 June 2013, from http://www.hsph.harvard.edu/pgda/WorkingPapers/2010/PGDA_WP_58.pdf.
Daly, J., Kellehear, A., & Gliksman, M. (1997). *The public health researcher: A Methodological approach*. Melbourne: Oxford University Press.
de Jong Gierveld, J. (1998). A review of loneliness: concept and definitions, determinants and consequences. *Reviews in Clinical Gerontology, 8*(01), 73-80.

de Jong Gierveld, J., Broese van Groenou, M., Hoogendoorn, A. W., & Smit, J. H. (2009). Quality of Marriages in Later Life and Emotional and Social Loneliness. *Journals of Gerontology Series B* doi: 10.1093/geronb/gbn043.

de Jong Gierveld, J., & Dykstra, P. A. (2008). Virtue is its own reward? Support-giving in the family and loneliness in middle and old age. *Ageing & Society, 28*(02), 271-287. doi: 10.1017/S0144686X07006629.

de Jong Gierveld, J., & Havens, B. (2004). Cross-national Comparisons of Social Isolation and Loneliness: Introduction and Overview. *Canadian Journal on Aging / La Revue canadienne du vieillissement, 23*(2), 109-113.

de Jong Gierveld, J., & Kamphuls, F. (1985). The Development of a Rasch-Type Loneliness Scale. *Applied Psychological Measurement, 9*(3), 289-299.

de Jong Gierveld, J., & Van Tilburg, T. (2006). A 6-Item Scale for Overall, Emotional, and Social Loneliness. *Research on Aging, 28*(5), 582-598.

Department for Victorian Communities. (2007). Indicators of community strength at the Local Government Area level in Victoria 2006 Retrieved 10 December 2009, from http://www.dvc.vic.gov.au/Web14/dvc/rwpgslib.nsf/GraphicFiles/Manningham/$file/Manningham.pdf.

Department of Health. (2011). Victorian Health Priorities Framework 2012–2022: Metropolitan Health Plan. Melbourne.

Department of Health and Aged Care Office for Older Australians. (2000). The National Strategy for an Ageing Australia, World Class Care Discussion Paper (pp. 75). Canberra, ACT.

Department of Health Victoria. (2011). Health Status of Victorians. *Life expectancy at birth: Victoria 2002-2006* from http://www.health.vic.gov.au/healthstatus/admin/life-expectancy/le0206.htm.

Department of Human Services. (2001). *Burden of Disease (BoD) - LGAs and regions 2001*. Melbourne: Retrieved from http://www.health.vic.gov.au/healthstatus/bod/bod_reg.htm.

Department of Human Services. (2003). *Victorian HACC Program Manual February 2003*. Melbourne: Retrieved from http://www.health.vic.gov.au/hacc/downloads/pdf/prog_manual7_feb03.pdf.

Department of Human Services Victoria. (2007). *Victorian Population Health Survey 2006* Melbourne, Victoria: Department of Human Services Victoria.

Department of Human Services Victoria. (2008). *Victorian Population Health Survey 2007*. Melbourne: Retrieved from http://www.health.vic.gov.au/healthstatus/vphs_current.htm.

Department of Planning and Community Development. (2010). *Ageing in Victoria: A plan for an age-friendly society 2010-2020.* Melbourne: Retrieved from www.seniors.vic.gov.au.

Depp, C. A., & Jeste, D. V. (2006). Definitions and Predictors of Successful Aging: A Comprehensive Review of Larger Quantitative Studies. *The American Journal of Geriatric Psychiatry, 14*(1), 6.

Diez-Roux, A. V. (2003). The Examination of Neighborhood Effects on Health: Conceptual and Methodological Issues Related to the Presence of Multiple Levels of Organization. In I. Kawachi & L. F. Berkman (Eds.), *Neighborhoods and Health* (pp. 45-64). New York: Oxford University Press, Inc.

Diez-Roux, A. V. (2005). Commentary: Estimating and understanding area health effects. *International Journal of Epidemiology, 34*(2), 284-285. doi: 10.1093/ije/dyi020.

Dillaway, H. E., & Byrnes, M. (2009). Reconsidering Successful Aging: A Call for Renewed and Expanded Academic Critiques and Conceptualizations. *Journal of Applied Gerontology, 28*(6), 702-722. doi: 10.1177/0733464809333882.

Dilworth-Anderson, P., & Cohen, M. (2010). Beyond Diversity to Inclusion: Recruitment and Retention of Diverse Groups in Alzheimer Research. *Alzheimer Disease & Associated Disorders July/September, 24*(1), S14-S18.

DiTommaso, E., & Spinner, B. (1993). The development and initial validation of the Social and Emotional Loneliness Scale for Adults (SELSA). *Personality and Individual Differences, 14*(1), 127-134. doi: 10.1016/0191-8869(93)90182-3.

Dogra, S., Meisner, B. A., & Baker, J. (2008). Psychosocial predictors of physical activity in older aged asthmatics *Age and Ageing 37*(4), 449-454. doi: 10.1093/ageing/afn114.

Donatti, C., Moorfoot, L., & Deans, D. (2005). Defining Productive Ageing - Engaging Consumers Retrieved 6 June 2013, from http://www.productiveageing.com.au/PDFs/Discussion%20Paper%20PA.PDF.

Du, P. (2008). Successful Ageing of the Oldest- Old in China. In Z. Yi, D. L. Poston, D. A. Vlosky & D. Gu (Eds.), *Healthy Longevity in China* (Vol. 20, pp. 293-303): Springer Netherlands.

Dugan, E., & Kivett, V. R. (1994). The importance of emotional and social isolation to loneliness among very old rural adults. *The Gerontologist, 34*(3), 340.

Dupertuis, L. L., Aldwin, C. M., & Bosse, R. (2001). Does the Source of Support Matter for Different Health Outcomes?: Findings from the Normative Aging Study. *Journal of Aging and Health, 13*(4), 494-510.

Dykstra, P. A. (1995). Loneliness among the never and formerly married: The importance of supportive friendships and a desire for independence. *The Journals of Gerontology, 50*, S321.

Dykstra, P. A., & de Jong Gierveld, J. (2004). Gender and Marital History Differences in Emotional and Social Loneliness among Dutch Older Adults. *Canadian Journal on Aging / La Revue canadienne du vieillissement, 23*(2), 141-155.

Dykstra, P. A., van Tilburg, T. G., & de Jong Gierveld, J. (2005). Changes in Older Adult Loneliness. *Research on Aging, 27*(6), 725-747.

Ellen, I. G., Mijanovich, T., & Dillman, K.-N. (2001). Neighborhood Effects on Health: Exploring the Links and Assessing the Evidence. *Journal of Urban Affairs, 23*(3&4), 391-408.

ElSadr, C., Noureddine, S., & Kelley, J. (2009). Concept Analysis of Loneliness With Implications for Nursing Diagnosis. *International Journal of Nursing Terminologies and Classifications, 20*(1), 25.

Eshbaugh, E. (2009). The Role of Friends in Predicting Loneliness Among Older Women Living Alone. *Journal of Gerontological Nursing, 35*(5), 13.

Ethnic Communities Council of Victoria. (2008). Community Profiles: SAPP Program Victoria. Retrieved 2 July 2010, from http://www.eccv.org.au/library/file/policy/ ECCV_Community_Profiles_SAPP_Program.pdf.

Everingham, J.-A., Lui, C.-W., Bartlett, H., Warburton, J., & Cuthill, M. (2010). Rhetoric to Action: A Study of Stakeholder Perceptions of Aging Well in Two Local Communities. *Journal of Gerontological Social Work, 53*(8), 760 - 775.

Fabrega, H., Jr. (1990). The concept of somatization as a cultural and historical product of Western medicine. *Psychosomatic Medicine, 52*(6), 653-672.

Feldman, S., Radermacher, H., Browning, C., Bird, S., & Thomas, S. (2008). Challenges of recruitment and retention of older people from culturally diverse communities in research. *Ageing and Society, 28*(04), 473-493. doi: 10.1017/S0144686X07006976.

Findlay, R. A. (2003). Interventions to reduce social isolation amongst older people: Where is the evidence? *Ageing and Society, 23*, 647-658.
Fiori, K. L., Antonucci, T. C., & Cortina, K. S. (2006). Social network typologies and mental health among older adults. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences, 61*(1), P25-P32.
Flood, M. (2005). Mapping Loneliness in Australia (pp. 47): The Australia Institute.
Fromm-Reichmann, F. (1959). Loneliness. *Psychiatry, 22*, 1-15.
Frumkin, H. (2003). Healthy places: Exploring the evidence. *American Journal of Public Health, 93*(9), 1451.
Fry, C. L., Dickerson-Putman, J., Draper, P., Ikels, C., Keith, J., Glascock, A. P., et al. (1997). Culture and the meaning of a good old age. In J. Sokolovsky (Ed.), *The cultural context of ageing: Worldwide perspectives.* (2nd ed., pp. 99-123). Westport: Bergin & Garvey.
Gadalla, T. M. (2009). Sense of Mastery, Social Support, and Health in Elderly Canadians. *Journal of Aging and Health, 21*(4), 581-595. doi: 10.1177/0898264309333318.
Gallo, F. T. (2008). *Business Leadership in China: How to Blend Best Western Practices with Chinese Wisdom.* Singapore: John Wiley & Sons (Asia) Pty. Ltd.
García, L. E., Banegas, J. R., Pérez-Regadera, A. G., Cabrera, R. H., & Rodríguez-Artalejo, F. (2005). Social network and health-related quality of life in older adults: A population-based study in Spain. *Quality of Life Research, 14*(2), 511-520.
Garfein, A. J., & Herzog, A. R. (1995). Robust Aging among the Young-Old, Old-Old, and Oldest-Old. *Journal of Gerontology B Social Sciences, 50B*(2), S77-S87. doi: 10.1093/geronb/50B.2.S77.
Garratt, A., Schmidt, L., Mckintosh, A., & Fitzpatrick, R. (2002). Quality of life measures soar. *British Medical Journal, 324*(7351). doi: 10.1136/bmj.324.7351.0.
Gerstorf, D., Smith, J., & Baltes, P. B. (2006). A Systemic-Wholistic Approach to Differential Aging: Longitudinal Findings From the Berlin Aging Study. *Psychology & Aging December, 21*(4), 645-663.
Giles-Corti, B., & Donovan, R. J. (2002). Socioeconomic Status Differences in Recreational Physical Activity Levels and Real and Perceived Access to a Supportive Physical Environment. *Preventive Medicine, 35*(6), 601-611. doi: 10.1006/pmed.2002.1115.
Glasgow, N. (2000). Transportation Transitions and Social Integration of Nonmetropolitan Older People. In K. Pillemer, P. Moen, E. Wethington & N. Glasgow (Eds.), *Social Integration in the Second Half of Life* (pp. 108-131). Baltimore: The Johns Hopkins University Press.
Glass, T. A., & Balfour, J. L. (2003). Neighborhoods, Aging, and Functional Limitations. In I. Kawachi & L. F. Berkman (Eds.), *Neighborhoods and Health* (pp. 303-334). New York: Oxford University Press.
Glass, T. A., De Leon, C. F. M., Bassuk, S. S., & Berkman, L. F. (2006). Social Engagement and Depressive Symptoms in Late Life: Longitudinal Findings. *Journal of Aging and Health, 18*(4), 604-628.
Goffman, E. (1986). *Stigma: notes on the management of spoiled identity* (First Touchstone Edition ed.). New York: Touchstone, Simon & Schuster.
Goodenough, W. H. (1999). Outline of a framework for a theory of cultural evolution. *Cross-Cultural Research, 33*(1), 84-107.
Gordon, S. (1976). *Lonely in America*. New York: Simon & Schuster.
Gravetter, F. J., & Forzano, L.-A. B. (2003). *Research Methods for the Behavioral Sciences*. Belmont: Thomson Wadsworth.

Green, L., Richardson, D., Lago, T., & Schatten-Jones, E. (2001). Network Correlates of Social and Emotional Loneliness in Young and Older Adults. *Personality and Social Psychology Bulletin, 27*(3), 281-288.
Greene, J. C., & Caracelli, V. J. (2003). Making Paradigmatic Sense of Mixed Methods Practice. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 91-110). Thousand Oaks: Sage Publications Inc.
Grenade, L., & Boldy, D. (2008). Social isolation and loneliness among older people: issues and future challenges in community and residential settings. *Australian Health Review, 32*(3), 468.
Gruenewald, T. L., Mroczek, D. K., Ryff, C. D., & Singer, B. H. (2008). Diverse Pathways to Positive and Negative Affect in Adulthood and Later Life: An Integrative Approach Using Recursive Partitioning. *Developmental Psychology March, 44*(2), 330-343.
Guba, E. G. (1990). The Alternative Paradigm Dialog. In E. G. Guba (Ed.), *The Paradigm Dialog* (pp. 17-30). Newbury Park, California: Sage Publications Inc.
Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods, 18*(1), 59-82. doi: 10.1177/1525822x05279903.
Guo, X. (2005). *Immigrating to and Ageing in Australia: Chinese Experiences.* PhD Thesis, Murdoch University.
Gupta, A., & Ferguson, J. (1992). Beyond "Culture": Space, Identity, and the Politics of Difference. *Cultural Anthropology, 7*(1), 6-23. doi: 10.1525/can.1992.7.1.02a00020.
Hansen-Kyle, L. (2005). A concept analysis of healthy ageing. *Nursing Forum, 40*, 45-57.
Hansen, E. C. (2006). *Successful Qualitative Health Research A practical introduction*. Maidenhead: Open University Press.
Havens, B., Hall, M., Sylvestre, G., & Jivan, T. (2004). Social Isolation and Loneliness: Differences between Older Rural and Urban Manitobans. *Canadian Journal on Aging / La Revue canadienne du vieillissement, 23*(2), 129-140.
Havighurst, R. J. (1961). Successful Aging. *The Gerontologist, 1*(1), 8-13. doi: 10.1093/geront/1.1.8.
Havighurst, R. J. (1968). Personality and Patterns of Aging. *The Gerontologist, 8*(1 Part 2), 20-23. doi: 10.1093/geront/8.1_Part_2.20.
Havighurst, R. J., Neugarten, B. L., & Tobin, S. S. (1968). Disengagement and Patterns of Aging. In B. Neugarten (Ed.), *Middle Age and Aging: A Reader in Social Psychology*. Chicago: University of Chicago Press.
Hawkley, L. C., & Cacioppo, J. T. (2007). Aging and Loneliness: Downhill Quickly? *Current Directions in Psychological Science, 16*(4), 187-191.
Hawkley, L. C., Gu, Y., Luo, Y.-J., & Cacioppo, J. T. (2012). The Mental Representation of Social Connections: Generalizability Extended to Beijing Adults. *PLoS ONE, 7*(9), e44065. doi: 10.1371/journal.pone.0044065.
Hawkley, L. C., Hughes, M., Waite, L., Masi, C., Thisted, R., & Cacioppo, J. (2008). From Social Structural Factors to Perceptions of Relationship Quality and Loneliness: The Chicago Health, Aging, and Social Relations Study. *The Journals of Gerontology, 63B*(6), S375.
Hawthorne, G. (2006). Measuring Social Isolation in Older Adults: Development and Initial Validation of the Friendship Scale. *Social Indicators Research, 77*(3), 521-548. doi: 10.1007/s11205-005-7746-y.
Headey, B., Muffels, R., & Mark, W. (2008). Money Does not Buy Happiness: Or Does It? A Reassessment Based on the Combined Effects of Wealth, Income and Consumption. *Social Indicators Research, 87*(1), 65-82. doi: 10.1007/s11205-007-9146-y.

Heikkinen, E. (1999). *Determinants of healthy ageing - Implications for research policy.* Finland: University of Jyvaskyla.
Heikkinen, R.-L., & Kauppinen, M. (2004). Depressive symptoms in late life: a 10-year follow-up. *Archives of Gerontology and Geriatrics, 38*(3), 239-250. doi: 10.1016/j.archger.2003.10.004.
Herfel, W., Rodrigues, D., & Gao, Y. (2007). Chinese Medicine and the Dynamic Conceptions of Health and Disease. *Journal of Chinese Philosophy, 34*(s1), 57-79.
Herzog, A. R., Kahn, R. L., Morgan, J. N., Jackson, J., & Antonucci, T. (1989). Age differences in productive activity. *The Journals of Gerontology, Social Sciences, 44*, 129-138.
Hiscock., R., Macintyre, S., Kearns, A., & Ellaway, A. (2002). Means of transport and ontological security: Do cars provide psycho-social benefits to their users? *Transportation Research Part D Transport and Environment, 7*(2), 119-135. doi: 10.1016/S1361-9209(01)00015-3
Ho, D. Y. F., & Chiu, C.-Y. (1994). Component ideas of individualism, collectivism and social organization: An application in the study of Chinese culture. In U. Kim, H. C. Triandis, C. Kagitcibasi, C.-C. Choic & G. Yoon (Eds.), *Individuals and collectivism: Theory, method and applications* (pp. 137-156). Newbury Park: Sage Press.
Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Newbury Park: Sage Publishers.
Hofstede, G., & Bond, M. H. (1984). Hofstede's Culture Dimensions: An Independent Validation Using Rokeach's Value Survey. *Journal of Cross-Cultural Psychology, 15*(4), 417-433. doi: 10.1177/0022002184015004003.
Hogan, W. P. (2004). *Review of Pricing Arrangements in Residential Aged Care*. (3456 (JN8529)). Commonwealth of Australia.
Holstein, M. B. (1992). Productive aging: A feminist critique. *Journal of Aging and Social Policy, 4*(3-4), 17-34.
Holstein, M. B., & Minkler, M. (2003). Self, Society, and the "New Gerontology". *The Gerontologist, 43*(6), 787-796.
House, J. (2002). Understanding Social Factors and Inequalities in Health: 20th Century Progress and 21st Century Prospects. *Journal of Health and Social Behavior [NLM - MEDLINE], 43*(2), 125-142.
House, J., Landis, K. R., & Umberson, D. (1988). Social Relationships and Health. *Science, 241*(4865), 540-545.
House, J., Lepkowski, J., Kinney, A., Mero, R., Kessler, R., & Herzog, A. (1994). The Social Stratification of Aging and Health. *Journal of Health and Social Behavior, 35*(3), 213-234.
Howe, K. R. (1988). Against the Quantitative-Qualitative Incompatibility Thesis or Dogmas Die Hard. *Educational Researcher, 17*(8), 10-16. doi: 10.3102/0013189x017008010.
Hsiao, F. H., Klimidis, S., Minas, H., & Tan, E.-S. (2006). Cultural attribution of mental health suffering in Chinese societies: the views of Chinese patients with mental illness and their caregivers. *Journal of Clinical Nursing, 15*(8), 998-1006.
Hsiao, F. H., Klimidis, S., & Minas, I. (2006). Folk concepts of mental disorders among Chinese-Australian patients and their caregivers. *Journal of Advanced Nursing, 55*, 58 - 67.
Hu, H. C. (1944). The Chinese Concepts of "Face". *American Anthropologist, 46*(1), 45-64.
Hughes, M. E., Waite, L. J., Hawkley, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys. *Research on Aging, 26*(6), 655-672.

Huisman, M., Kunst, A. E., & Mackenbach, J. P. (2003). Socioeconomic inequalities in morbidity among the elderly; a European overview. *Social Science & Medicine, 57*(5), 861-873.

Hung, L.-W., Kempen, G. I. J. M., & De Vries, N. K. (2010). Cross-cultural comparison between academic and lay views of healthy ageing: a literature review. *Ageing and Society, 30*(8), 1373-1391. doi: http://dx.doi.org/10.1017/S0144686X10000589.

id consulting. (2009). Community Profile Retrieved 9 December 2009, from http://profile.id.com.au/Default.aspx?id=115&pg=116&gid=10&type=enum.

id consulting. (2013). Community Profile City of Manningham Retrieved 27 April 2013, from http://profile.id.com.au/manningham/ancestry.

Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior, 38*(1), 21.

Idler, E. L., Hudson, S. V., & Leventhal, H. (1999). The Meanings of Self-Ratings of Health: A Qualitative and Quantitative Approach. *Research on Aging, 21*(3), 458-476. doi: 10.1177/0164027599213006.

Immigration Museum. (2010). Origins: Immigrant Communities in Victoria Retrieved 2 July 2010, from http://museumvictoria.com.au/origins/history.aspx?pid=24.

Ingersoll-Dayton, B., Saengtienchai, C., Kespichayawattana, J., & Aungsuroch, Y. (2001). Psychological Well-Being Asian Style: The Perspective of Thai Elders *PSC Research Report* (pp. 19). Ann Arbor: Population Studies Center at the Institue for Social Research University of Michigan.

Ip, D., Lui, C. W., & Chui, W. H. (2007). Veiled entrapment: a study of social isolation of older Chinese migrants in Brisbane, Queensland. *Ageing and Society, 27*, 719.

Isaac, M., Janca, A., & Orley, J. (1996). Somatization - a culture-bound or universal syndrome? *Journal of Mental Health, 5*(3), 219-222. doi: 10.1080/09638239650036884.

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods, 18*(1), 3-20. doi: 10.1177/1525822x05282260.

Jang, S.-N., Choi, Y.-J., & Kim, D.-H. (2009). Association of Socioeconomic Status with Successful Ageing Differences in the Components of Successful Ageing. *Journal of Biosocial Science, 41*(2), 207-219.

Jang, Y., Chiriboga, D. A., Lee, J., & Cho, S. (2009). Determinants of a sense of mastery in Korean American elders: A longitudinal assessment. *Aging & Mental Health, 13*(1), 99 - 105.

Jang, Y., Kim, G., Hansen, L., & Chiriboga, D. A. (2006). Attitude of older Korean Americans toward mental health services. *Journal of the American Geriatrics Society, 55*, 616-620.

Jatrana, S., & Chan, A. (2007). Do Socioeconomic Effects on Health Diminish with Age? A Singapore Case Study. *Journal of Cross-Cultural Gerontology, 22*(3), 287-301.

Johnson, D. P., & Mullins, L. C. (1987). Growing old and lonely in different societies: Toward a comparative perspective. *Journal of Cross-Cultural Gerontology, 2*(3), 257-275.

Johnston, D. (2006). *A Brief History of Philosophy from Socrates to Derrida*. London: Continuum.

Jorm, A. F., Christensen, H., Henderson, A. S., Jacomb, P. A., Korten, A. E., & Mackinnon, A. (1998). Factors Associated with Successful Ageing. *Australasian Journal on Ageing, 17*(1), 33-37. doi: 10.1111/j.1741-6612.1998.tb00222.x.

Ju-Kang, T. (1985). Traditional Chinese beliefs and attitudes towards mental illness. In W. S. Tseng & Y. H. Wu (Eds.), *Chinese Culture and Mental Health* (pp. 67-84). Orlando: Academic Press.
Jylha, M. (2003). Old Age and Loneliness: Cross-sectional and Longitudinal Analyses in the Tampere Longitudinal Study on Aging. *Canadian Journal on Aging, 23*(2), 157-168.
Kahana, E., Kahana, B., & Kercher, K. (2003). Emerging lifestyles and proactive options for successful ageing. *Ageing International, 28*(2), 155-180.
Kahn, R. L. (2002). Guest editorial: On "Successful aging and well-being: Self-rated compared with Rowe and Kahn". *The Gerontologist, 42*(6), 725.
Kaufman, S. R., Shim, J. K., & Russ, A. J. (2004). Revisiting the Biomedicalization of Aging: Clinical Trends and Ethical Challenges *The Gerontologist, 44*(6), 731-738. doi: 10.1093/geront/44.6.731.
Kawachi, I., Subramanian, S., & Almeida-Filho, N. (2002). A glossary for health inequalities. *Journal of Epidemiology & Community Health [NLM - MEDLINE], 56*(9), 647.
Keleher, H., & MacDougall, C. (Eds.). (2009). *Understanding health : a determinants approach*. South Melbourne, Vic: Oxford University Press.
Kendig, H., Koyano, W., Asakawa, T., & Ando, T. (1999). Social support of older people in Australia and Japan. *Ageing and Society, 19*, 185.
Kennedy, B., Kawachi, I., Glass, R., & Prothrow-Stith, D. (1998). Income distribution, socioeconomic status, and self rated health in the United States: multilevel analysis. *BMJ [Clinical Research Ed.] [NLM - MEDLINE], 317*(7163), 917.
Kerschner, H., & Pegues, J. A. (1998). Productive aging: a quality of life agenda. *Journal of the American Dietetic Association, 98*, 1445-1448.
Kim, D. (2008). Blues from the Neighborhood? Neighborhood Characteristics and Depression. *Epidemiologic reviews, 30*(1), 101-117. doi: 10.1093/epirev/mxn009.
Kirmayer, L., & Young, A. (1998). Culture and somatization: clinical, epidemiological, and ethnographic perspectives. *Psychosomatic Medicine, 60*(4), 420-430.
Kleinman, A. (1982). Neurasthenia and depression: A study of somatization and culture in China. *Culture, Medicine and Psychiatry, 6*(2), 117-190.
Kleinman, A., & Lin, T.-Y. (1981). Introduction. In A. Kleinman & T.-Y. Lin (Eds.), *Normal and Abnormal Behavior in Chinese Culture* (pp. xiii-xxiii). Dordrecht: D Reidel Publishing Company.
Klimidis, S., Hsiao, F., & Minas, I. (2007). Chinese-Australians' knowledge of depression and schizophrenia in the context of their under-utilization of mental health care: An analysis of labeling. *International Journal of Social Psychiatry, 53*, 464 - 479.
Kobayashi, K. M., Cloutier-Fisher, D., & Roth, M. (2009). Making Meaningful Connections: A Profile of Social Isolation and Health Among Older Adults in Small Town and Small City, British Columbia. *Journal of Aging and Health, 21*(2), 374-397. doi: 10.1177/0898264308329022.
Korporaal, M., Broese van Groenou, M. I., & van Tilburg, T. G. (2008). Effects of Own and Spousal Disability on Loneliness Among Older Adults. *Journal of Aging and Health, 20*(3), 306-325. doi: 10.1177/0898264308315431.
Krause-Parello, C. A. (2008). The Mediating Effect of Pet Attachment Support Between Loneliness and General Health in Older Females Living in the Community. *Journal of Community Health Nursing, 25*(1), 1 - 14.
Krause, N. (1993). Neighborhood Deterioration and Social Isolation in Later Life. *International Journal of Aging and Human Development, 36*(1), 9-36.
Krause, N. (1996). Neighborhood Deterioration and Self-Rated Health in Later Life. *Psychology and Aging, 11*(2), 342-352.

Kubzansky, L., Subramanian, S., Kawachi, I., Fay, M., Soobader, M., & Berkman, L. (2005). Neighborhood contextual influences on depressive symptoms in the elderly. *American Journal of Epidemiology [NLM - MEDLINE], 162*(3), 253.

Kuhn, T. S. (1996). *The Structure of Scientific Revolutions* (3rd ed.). Chicago, Ill: The University of Chicago Press.

Kunst, A. E., Bos, V., Lahelma, E., Bartley, M., Lissau, I., Regidor, E., et al. (2005). Trends in socioeconomic inequalities in self-assessed health in 10 European countries. *International Journal of Epidemiology, 34*(2), 295-305. doi: 10.1093/ije/dyh342.

Lachman, M. E., & Weaver, S. L. (1998). The Sense of Control as a Moderator of Social Class Differences in Health and Well-Being. *Journal of Personality and Social Psychology, 74*(3), 763-773.

Lai, D., & Surwood, S. (2009). Chinese health beliefs of older Chinese in Canada. *Journal of Aging and Health, 21*, 38 - 62.

Lalonde, M. (1981). A New Perspective on the Health of Canadians, a working document. Ottawa: Government of Canada.

Lam, L. (1994). Self-assessment of health status of aged Chinese-Canadians. *Journal of Asian and African Studies, 29*, 77.

Lawlor, D. A., & Sterne, J. A. C. (2007). Socioeconomic inequalities in health are important but the effects of age and sex may be overlooked. *British Medical Journal, 334*(7601), 963-964. doi: 10.1136/bmj.39203.661829.BE.

Le Van Baumer, F. (1978). *Main Currents of Western Thought. Readings in Western Euorpean Intellectual History from the Middle Ages to the Present.* (Fourth ed.). New Haven: Yale University Press.

Lee, G. R., & Ishii-Kuntz, M. (1987). Social Interaction, Loneliness, and Emotional Well-Being among the Elderly. *Research on Aging, 9*(4), 459-482. doi: 10.1177/0164027587094001.

Lee, P.-L., Lan, W., & Yen, T.-W. (2011). Aging Successfully: A Four-Factor Model. *Educational Gerontology, 37*, 210-227. doi: 10.1080/03601277.2010.487759.

Leung, K., & Bond, M. H. (1984). The Impact of Cultural Collectivism on Reward Allocation. *Journal of Personality and Social Psychology, 47*, 793-804.

Lewis, J. (2010). Successful Aging through the Eyes of Alaska Natives: Exploring Generational Differences Among Alaska Natives. *Journal of Cross-Cultural Gerontology, 25*(4), 385-396. doi: 10.1007/s10823-010-9124-8.

Liang, J., Shaw, B. A., Krause, N., Bennett, J. M., & et al. (2005). How Does Self-Assessed Health Change With Age? A Study of Older Adults in Japan. *The Journals of Gerontology, 60B*(4), S224.

Liao, Y., McGee, D. L., Kaufman, J. S., Cao, G., & Cooper, R. S. (1999). Socioeconomic status and morbidity in the last years of life. *American Journal of Public Health, 89*(4), 569-572.

Liberal Party of Australia. (2013). *The Coalition's Policy for Healthy Life, Better Ageing*. Retrieved from http://www.liberal.org.au/our-policies.

Lin, K.-M. (1980). Traditional Chinese Medical Beliefs and Their Relevance for Mental Illness and Psychiatry. In A. Kleinman & T.-Y. Lin (Eds.), *Normal and Abnormal Behavior in Chinese Culture* (pp. 95-111). Dordrecht: D. Reidel Publishing Company.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology, 27*, 363-287.

Litwin, H. (1998). Social network type and health status in a national sample of elderly Israelis. *Social Science & Medicine, 46*(4-5), 599-609.

Litwin, H., & Shiovitz-Ezra, S. (2006). The association between activity and wellbeing in later life: what really matters? *Ageing & Society, 26*(02), 225-242.

Liu, L.-J., & Guo, Q. (2007). Loneliness and health-related quality of life for the empty nest elderly in the rural area of a mountainous county in China. *Quality of Life Research, Volume 16*(8), 1275-1280.
Löckenhoff, C., Costa, P., & Lane, R. (2008). Age Differences in Descriptions of Emotional Experiences in Oneself and Others. *The Journals of Gerontology, 63B*(2), 92-99.
Lockett, M. (1988). Culture and the Problem of Chinese Management. *Organization Studies, 9*(3), 475-496.
Long, M. V., & Peter, M. (2000). Personality, relationship closeness, and loneliness of oldest old adults and their children. *The Journals of Gerontology, 55B*(5), P311.
Lou, V. W. Q., & Ng, J. W. (2012). Chinese older adults' resilience to the loneliness of living alone: A qualitative study. *Aging & Mental Health, 16*(8), 1039-1046. doi: 10.1080/13607863.2012.692764.
Luanaigh, C. Ó., & Lawlor, B. A. (2008). Loneliness and the health of older people. *International Journal of Geriatric Psychiatry, 23*(12), 1213-1221.
Lupien, S. J., & Wan, N. (2004). Successful Ageing: From Cell to Self. *Philosophical Transactions: Biological Sciences, 359*(1449), 1413-1426. doi: 10.2307/4142144.
Maciel, A. G., Heckhausen, J., & Baltes, P. B. (1994). A life-span perspective on the interface between personality and intelligence. In R. J. Sternberg & P. Ruzgis (Eds.), *Personality and Intelligence* (pp. 61-103). New York: Cambridge University Press.
Macintyre, S., & Ellaway, A. (2003). Neighborhoods and Health: An Overview. In I. Kawachi & L. F. Berkman (Eds.), *Introduction. In I. Kawachi & L. F. Berkman (Eds.), Neighborhoods and Health* (pp. 20-42). New York: Oxford University Press, Inc.
Macintyre, S., Ellaway, A., & Cummins, S. (2002). Place effects on health: how can we conceptualise, operationalise and measure them? *Social Science & Medicine, 55*(1), 125-139.
Mak, A. S., & Chan, H. (1995). Chinese Family Values in Australia. In R. Hartley (Ed.), *Families and Cultural Diversity in Australia* (pp. 70-95). St Leonards: Allen and Unwin.
Manningham City Council. (2007). Ageing Well in Manningham 2006-2010.
Manningham City Council. (2010). Manningham City Council website.
Marangoni, C., & Ickes, W. (1989). Loneliness: A theoretical Review with Implications for Measurement. *Journal of Social and Personal Relationships, 6*, 93-128.
Marmot, M. (2001). Economic and Social Determinants of Disease. *Bulletin of the World Health Organization, 79*(10), 988-989.
Martin, J. (1998). *Cultural Diversity and Practice with Australians of Chinese Background: Consumer Perspectives.* Paper presented at the Changing families, challenging futures. 6th Australian Institute of Family Studies Conference., Melbourne, Australia. http://www.aifs.gov.au/conferences/aifs6/martinj.html.
Martinson, M., & Minkler, M. (2006). Civic Engagement and Older Adults: A Critical Perspective. *The Gerontologist 46*(3), 318-324.
Matheson, F. I., Moineddin, R., Dunn, J. R., Creatore, M. I., Gozdyra, P., & Glazier, R. H. (2006). Urban neighborhoods, chronic stress, gender and depression. *Social Science & Medicine, 63*(10), 2604-2616.
Maxcy, S. J. (2003). Pragmatic Threads in Mixed Methods Research in the Social Sciences: The Search for Multiple Modes of Inquiry and the End of the Philosphy of Formalism. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 51-89). Thousand Oaks: Sage Publications Inc.
McGraw, J. G. (1995). Loneliness, its nature and forms: an existential perspective. *Man and World, 28*(1), 43-64. doi: 10.1007/BF01278458

McHorney, C. A., Ware, J. E. J., Rogers, W., Raczek, A. E., & Lu, J. F. R. (1992). The Validity and Relative Precision of MOS Short- and Long- Form Health Status Scales and Dartmouth COOP Charts: Results From the Medical Outcomes Study. *Medical Care, 30*(5 Supplement), 253-265.

McInnis, G. J., & White, J. H. (2001). A phenomenological exploration of loneliness in the older adult. *Archives of Psychiatric Nursing, 15*(3), 128-139.

McLeod, C., Lavis, J., Mustard, C., & Stoddart, G. (2003). Income inequality, household income, and health status in Canada: a prospective cohort study. *American Journal of Public Health [NLM - MEDLINE], 93*(8), 1287.

McMurdo, M. E. T. (2000). A healthy old age: Realistic or futile goal? *British Medical Journal, 321*(7269), 1149.

Mcreynolds, J. L., & Rossen, E. K. (2004). Importance of Physical Activity, Nutrition, and Social Support for Optimal Aging. *Clinical Nurse Specialist, 18*(4), 200-206.

Medvedev, Z. A. (1990). An Attempt at a Rational Classification of Theories of Ageing. *Biological Reviews, 65*(3), 375-398. doi: 10.1111/j.1469-185X.1990.tb01428.x.

Meisner, B. A., Dogra, S., Logan, J. A., Baker, J., & Weir, P. L. (2010). Do or Decline?: Comparing the Effects of Physical Inactivity on Biopsychosocial Components of Successful Aging. . *Journal of Health Psychology, 15*(5), 688-696. doi: 10.1177/1359105310368184.

Mendes De Leon, C. F. (2005). Why do friendships matter for survival? [Editorial]. *Journal of Epidemiology and Community Health, 59*, 538-539.

Menec, V. H. (2003). The relation between everyday activities and successful aging: A 6-year longitudinal study. *The Journals of Gerontology, 58B*(2), S74.

Menec, V. H., Shooshtari, S., & Lambert, P. (2007). Ethnic Differences in Self-Rated Health Among Older Adults: A Cross-Sectional and Longitudinal Analysis. *Journal of Aging and Health, 19*(1), 62-86.

Menec, V. H., Shooshtari, S., Nowicki, S., & Fournier, S. (2010). Does the Relationship Between Neighborhood Socioeconomic Status and Health Outcomes Persist Into Very Old Age? A Population-Based Study. *Journal of Aging and Health, 22*(1), 27-47. doi: 10.1177/0898264309349029.

Migrant Information Centre Eastern Melbourne. (2013). Migrant Information Centre website, from http://www.miceastmelb.com.au.

Mijuskovic, B. (1996). The phenomenology and dynamics of loneliness. *Psychology: A Journal of Human Behavior, 33*(2), 41-51.

Minichiello, V., & Coulson, I. (2005). *Contemporary issues in gerontology: Promoting positive ageing.* Sydney: Allen and Unwin.

Minkler, M., & Fadem, P. (2002). "Successful aging": A disablity perspective. *Journal of Disability Policy Studies, 12*(4), 229-235.

Mjelde-Mossey, L. A., Chin, I., Lubben, J., & Lou, V. W. Q. (2009). Relationship Between Productive Activities, Family Relations, and Aging Well for Elders in China. *Journal of Ethnic And Cultural Diversity in Social Work, 18*(4), 276-292.

Moghaddam, F. M., Walker, B. R., & Harre, R. (2003). Cultural Distance, Levels of Abstraction, and the Advantages of Mixed Methods. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 111-134). Thousand Oaks: Sage Publications Inc.

Moon, A. (1996). Predictors of morale among Korean immigrant elderly in the USA. *Journal of Cross-Cultural Gerontology, 11*(4), 351-367.

Moorer, P., & Suurmeijer, T. (2001). The Effects of Neighbourhoods on Size of Social Network of the Elderly and Loneliness: A Multilevel Approach. *Urban Studies (Routledge), 38*(1), 105-118. doi: 10.1080/00420980020014839.

Morgan, D. L. (1995). Why Things (Sometimes) Go Wrong in Focus Groups. *Qualitative Health Research, 5*(4), 516-523. doi: 10.1177/104973239500500411.
Morgan, D. L. (2010). Reconsidering the Role of Interaction in Analyzing and Reporting Focus Groups. *Qualitative Health Research, 20*(5), 718-722. doi: 10.1177/1049732310364627.
Morse, J. M. (1991). Approaches to qualitative-quantitative medthodological triangulation. *Nursing Research, 40*(2), 120-123.
Morse, J. M. (2003). Principles of Mixed Methods and Multimethod Research Design. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 189-208). Thousand Oaks: Sage Publications Inc.
Moustakas, C. E. (1961). *Loneliness*. Englewood Cliffs, NJ: Prentice-Hall Inc.
Municipal Association of Victoria. (2013) Retrieved 18 August 2013.
Nascher, I. L. (1909). Geriatrics. *New York Medical Journal, 90*, 358.
Neugarten, B. L. (1973). Personality change in late life: A developmental perspective. In C. Eisdorfer & M. P. Lawton (Eds.), *The psychology of adult development and aging* (pp. 311-335). Washington, D.C.: American Psychological Association.
Neupert, S. D., Almeida, D. M., & Charles, S. T. (2007). Age Differences in Reactivity to Daily Stressors: The Role of Personal Control. *The Journals of Gerontology, 62B*(4), p 216.
Newman, I., Ridenour, C. S., Newman, C., & DeMarco Jr, G. M. P. (2003). A Typology of Research Purposes and Its Relationship to Mixed Methods. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 167-188). Thousand Oaks: Sage Publications, Inc.
Nicholson, N. R. (2009). Social isolation in older adults: an evolutionary concept analysis. *Journal of Advanced Nursing, 65*(6), 1342-1352.
Noh, S., & Avison, W. R. (1996). Asian Immigrants and the Stress Process: A Study of Koreans in Canada. *Journal of Health and Social Behavior, 37*(2), 192-206.
NSW Government Family & Community Services Ageing Disability & Home Care. (2013) Retrieved 11 October 2013, from http://www.adhc.nsw.gov.au/__data/assets/file/0012/251130/Ageing_in_Place.pdf.
Olsen, K. M., & Dahl, S.-A. (2007). Health differences between European countries. *Social Science & Medicine, 64*(8), 1665-1678.
Olsson, C., Lyon, P., Hornell, A., Ivarsson, A., & Sydner, Y. M. (2009). Food That Makes You Different: The Stigma Experienced by Adolescents With Celiac Disease. *Qualitative Health Research, 19*(7), 976-984. doi: 10.1177/1049732309338722.
Onwuegbuzie, A. J., & Teddlie, C. (2003). A Framework for Analyzing Data in Mixed Methods Research. In A. Tashakkori, & Teddlie, C (Ed.), *Handbook of Mixed Methods in Social and Behavioral Research* (pp. 351-383): Thousand Oaks: Sage Publications, Inc.
Ostir, G. V., Simonsick, E., Kasper, J. D., & Guralnik, J. M. (2002). Satisfaction With Support Given and Its Association With Subsequent Health Status. *Journal of Aging and Health, 14*(3), 355-369.
Pallant, J. (2007). *SPSS Survival Manual, A step-by-step guide to data analysis using SPSS for Windows (Version 15)* (3rd ed.). Crows Nest, NSW, Australia: Allen & Unwin.
Parker, G., Gladstone, G., & Chee, K. T. (2001). Depression in the planet's largest ethnic group: The Chinese. *The American Journal of Psychiatry, 158*(6), 857-864.
Patton, M. Q. (1988). Paradigms and pragmatism. In D. M. Fetterman (Ed.), *Qualitative approaches to evaluation in education: The silent scientific revolution* (pp. 116-137). New York: Praeger Publishers.

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd ed.). Newbury Park: Sage Publications Inc.
Pearlin, L. I., & Schooler, C. (1978). The Structure of Coping. *Journal of Health and Social Behavior, 19*(1), 2-21.
Peel, N., Bartlett, H., & McClure, R. (2004). Healthy ageing: how is it defined and measured? *Australasian Journal on Ageing, 23*(3), 115-119. doi: 10.1111/j.1741-6612.2004.00035.x.
Peplau, L. A., & Perlman, D. (Eds.). (1982). *Loneliness: A Sourcebook of Current Theory, Research and Therapy*. New York: Wiley-Interscience Publication.
Perlman, D. (2004). European and Canadian Studies of Loneliness among Seniors. *Canadian Journal on Aging / La Revue canadienne du vieillissement, 23*(2), 181-188.
Perrig-Chiello, P. (1999). Health control beliefs in old age-relationship with subjective and objective health, and health behaviour. *Psychology, Health & Medicine, 4*(1), 83 - 94.
Pettigrew, S., & Roberts, M. (2008). Addressing loneliness in later life. *Aging & Mental Health, 12*(3), 302 - 309.
Phelan, J., Link, B., Diez-Roux, A., Kawachi, I., & Levin, B. (2004). "Fundamental causes" of social inequalities in mortality: a test of the theory. *Journal of Health and Social Behavior [NLM - MEDLINE], 45*(3), 265.
Pickett, K. E., & Pearl, M. (2001). Multilevel analyses of neighbourhood socioeconomic context and health outcomes: a critical review. *Journal of Epidemiology and Community Health, 55*(2), 111-122. doi: 10.1136/jech.55.2.111.
Pinquart, M. (2001). Correlates of Subjective Health in Older Adults: A Meta-Analysis. *Psychology and Aging, 16*, 414-426.
Ponizovsky, A. M., & Ritsner, M. S. (2004). Patterns of loneliness in an immigrant population. *Comprehensive Psychiatry, 45*(5), 408-414.
Poortinga, W. (2006). Social relations or social capital? Individual and community health effects of bonding social capital. *Social Science & Medicine, 63*(1), 255-270.
Powell, D. H. (2011). *The Aging Intellect*. New York: Routledge.
Pressey, S. L., & Simcoe, E. (1950). Case study comparisons of successful and problem old people. *Journal of Gerontology, 5*, 168-175.
Prieto-Flores, M.-E., Fernandez-Mayoralas, G., Rosenberg, M. W., & Rojo-Perez, F. (2010). Identifying Connections Between the Subjective Experience of Health and Quality of Life in Old Age. *Qualitative Health Research, 20*(11), 1491-1499. doi: 10.1177/1049732310374062.
Productivity Commission. (2005). Economic Implications of an Ageing Australia, Research Report (pp. 428). Canberra.
Project Partnerships. (2009). MAV COTA Positive Ageing in Local Communities Project Evaluation December 2008. Melbourne.
Pudrovska, T., Schieman, S., Pearlin, L. I., & Nguyen, K. (2005). The Sense of Mastery as a Mediator and Moderator in the Association Between Economic Hardship and Health in Late Life. *Journal of Aging and Health, 17*(5), 634-660. doi: 10.1177/0898264305279874.
Quadagno, J. S. (2009). *Aging and the Life Course: An Introduction to Social Gerontology* (5th ed.). New York: McGraw-Hill.
Quality Metric. (2010). Language Translations Retrieved 7 June 2010, from http://www.qualitymetric.com/WhatWeDo/LanguageTranslations/tabid/213/Default.aspx.
Quality Metric. (2013) Retrieved 1 March 2013, from www.sf36.org.
Quine, S. (1999). Health concerns and expectations of Anglo and ethnic older Australians: A comparative approach. *Journal of Cross-Cultural Gerontology, 14*(2), 97-111.

Rabinowitz, Y. G. P., & Gallagher-Thompson, D. P. (2010). Recruitment and Retention of Ethnic Minority Elders into Clinical Research. *Alzheimer Disease & Associated Disorders July/September, 24*(1), S35-S41.
Rahkonen, O., & Takala, P. (1998). Social Class Differences in Health and Functional Disability Among Older Men and Women. *International Journal of Health Services, 28*(3), 511-524.
Reiner, M., Niermann, C., Jekauc, D., & Woll, A. (2013). Long-term health benefits of physical activity – a systematic review of longitudinal studies. *BMC Public Health 13*(813). doi: 10.1186/1471-2458-13-813.
Rice, P., & Ezzy, D. (1999). *Qualitative research methods: A health focus*. Melbourne: Oxford University Press.
Richman, L. S., & Leary, M. R. (2009). Reactions to Discrimination, Stigmatization, Ostracism, and Other Forms of Interpersonal Rejection: A Multimotive Model. *Psychological Review, 116*(2), 365-383.
Rodin, J., & Timko, C. (1991). Sense of control, aging, and health. In M. G. Ory & R. P. Abeles (Eds.), *Aging, health and behavior* (pp. 174-206). Thousand Oaks: Sage.
Rokach, A. (1999). Cultural Background and Coping With Loneliness. *Journal of Psychology, 133*(2), 217.
Rokach, A., & Bauer, N. (2004). Age, Culture, and Loneliness Among Czechs and Canadians. *Current Psychology, 23*(1), 2-23.
Rokach, A., & Brock, H. (1997). Loneliness and the effects of life changes. *The Journal of Psychology, 131*(3), 284-298.
Rokach, A., Orzeck, T., Cripps, J., Lackovic-Grgin, K., & Penezic, Z. (2001). The effects of culture on the meaning of loneliness. *Social Indicators Research, 53*(1), 17-31.
Rook, K. S. (1984). Promoting social bonding: Strategies for helping the lonely and socially isolated. *American Psychologist, 39*(12), 1389-1407.
Rosedale, M. (2007). Loneliness: An Exploration of Meaning. *Journal of the American Psychiatric Nurses Association 13*(4), 201-209.
Ross, C. E., & Zhang, W. (2008). Education and Psychological Distress Among Older Chinese. *Journal of Aging and Health, 20*(3), 273-289. doi: 10.1177/0898264308315428.
Routasalo, P., Savikko, N., Tilvis, R., Strandberg, T., & Pitkala, K. (2006). Social Contacts and Their Relationship to Loneliness among Aged People - A Population-Based Study. *Gerontology, 52*(3), 181-187.
Routasalo, P., Tilvis, R., Kautiainen, H., & Pitkala, K. (2009). Effects of psychosocial group rehabilitation on social functioning, loneliness and well-being of lonely, older people: randomized controlled trial. *Journal of Advanced Nursing, 65*(2), 297-305.
Rowe, J. W., & Kahn, R. L. (1987). Human Aging: Usual and Successful. *Science, 237*(4811), 143-149.
Rowe, J. W., & Kahn, R. L. (1997). Successful aging. *The Gerontologist, 37*(4), 433.
Rudinger, G., & Thomae, H. (1990). The Bonn Longitudinal Study of Aging: Coping, life adjustment, and life satisfaction. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: perspectives from the behavioral sciences* (pp. 265-295). Cambridge: Cambridge University Press.
Russell, D. (1996). UCLA Loneliness Scale (Version 3): Reliability, Validity, and Factor Structure. *Journal of Personality Assessment, 66*(1), 20.
Russell, D. (2008). [Email RE: follow up on Loneliness Scale].
Russell, D., Cutrona, C. E., Rose, J., & Yurko, K. (1984). Social and Emotional Loneliness: An Examination of Weiss's Typology of Loneliness. *Journal of Personality and Social Psychology, 46*(6), 1313-1321.

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The Revised UCLA Loneliness Scale: Concurrent and Discriminant Validity Evidence. *Journal of Personality and Social Psychology, 39*(3), 472-480.
Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a Measure of Loneliness. *Journal of Personality Assessment, 42*(3), 290.
Russell, R. (2008). Map of Australia. *Maps* Retrieved 25 June 2010, from http://www.rupert.id.au/maps.php.
Ryan, A. K., & Willits, F. K. (2007). Family Ties, Physical Health, and Psychological Well-Being. *Journal of Aging and Health, 19*(6), 907-920.
Ryff, C. D. (1982). Successful Aging: A Developmental Approach. *The Gerontologist, 22*(2), 209-214.
Ryff, C. D. (1989). Happiness Is Everything, or Is It? Explorations on the Meaning of Psychological Well-Being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081.
Ryff, C. D., & Singer, B. (2009). Understanding Healthy Aging: Key Components and Their Integration. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of Theories of Aging* (2nd ed., pp. 117-144). New York: Springer Publishing Co.
Sadler, W. A. (1978). Dimensions in the Problem of Loneliness: a Phenomenological Approach in Social Psychology. *Journal of Phenomenological Psychology, 9*(1), 157-187(131).
Sadler, W. A., & Johnson, T. B., Jr. (1980). From Loneliness to Anomia. In J. Hartog, J. R. Audy & Y. A. Cohen (Eds.), *The Anatomy of Loneliness* (pp. 34-64). New York: International Universities Press.
Samson, C. (1999a). Biomedicine and the Body. In C. Samson (Ed.), *Health Studies: A critical and cross-cultural reader* (pp. 3-21). Oxford: Blackwell Publishers Ltd.
Samson, C. (1999b). Disease and the Self. In C. Samson (Ed.), *Health Studies* (pp. 63-82). Oxford: Blackwell Publishers Inc.
Sargent-Cox, K. A., Anstey, K. J., & Luszcz, M. A. (2008). Determinants of Self-Rated Health Items With Different Points of Reference: Implications for Health Measurement of Older Adults. *Journal of Aging and Health, 20*(6), 739-761. doi: 10.1177/0898264308321035.
Sastry, J., & Ross, C. E. (1998). Asian Ethnicity and the Sense of Personal Control. *Social Psychology Quarterly, 61*(2), 101-120.
Savikko, N., Routasalo, P., Tilvis, R. S., Strandberg, T. E., & Pitkälä, K. H. (2005). Predictors and subjective causes of loneliness in an aged population. *Archives of Gerontology and Geriatrics, 41*(3), 223-233.
Scalise, J. J., Ginter, E. J., & Gerstein, L. H. (1984). Multidimensional Loneliness Measure: The Loneliness Rating Scale (LRS). *Journal of Personality Assessment, 48*(5), 525 - 530.
Schaie, W., & Pietrucha, M. (2000). *Mobility and transportation in the elderly*. New York: Springer.
Schieman, S. (2001). Age, Education, and the Sense of Control: A Test of the Cumulative Advantage Hypothesis. *Research on Aging, 23*(2), 153-178. doi: 10.1177/0164027501232002.
Schmidt, N., & Sermat, V. (1983). Measuring loneliness in different relationships. *Journal of Personality & Social Psychology, 44*(5), 1038-1047.
Schnittker, J. (2005). When Mental Health Becomes Health: Age and the Shifting Meaning of Self-Evaluations of General Health. *The Milbank Quarterly, 83*(3), 397-423.

Schnittker, J. (2007). Look (Closely) at All the Lonely People: Age and the Social Psychology of Social Support. *Journal of Aging and Health 19*(4), 659-682.
Schulz, R., & Heckhausen, J. (1996). A Life Span Model of Successful Aging. *American Psychologist, 51*(7), 702-714.
Seeman, M., & Seeman, T. E. (1983). Health Behavior and Personal Autonomy: A Longitudinal Study of the Sense of Control in Illness. *Journal of Health and Social Behavior, 24*(2), 144-160.
Settersten, R. A., & Trauten, M. E. (2009). The New Terrain of Old Age: Hallmarks, Freedoms, and Risks. In V. L. Bengstson, M. Silverstein, N. M. Putney & D. Gans (Eds.), *Handbook of Theories of Aging* (pp. 455-469). New York: Springer Publishing Company.
Silverman, P., Hecht, L., & McMillin, J. D. (2000). Modeling life satisfaction among the aged: a comparison of Chinese and Americans. *Journal of Cross-Cultural Gerontology, 15*(4), 289-305.
Sitlington, J. (1999). *Moving to Healthier People and Healthier Places*. Melbourne: VicHealth.
Smith, K. V., & Goldman, N. (2011). Measuring Health Status: Self, Interviewer, and Physician Reports of Overall Health. *Journal of Aging and Health, 23*(2), 242-266. doi: 10.1177/0898264310383421.
Snibson, L. (2001). Social Supports and Interests of Older Adults in Manningham (Aged and Disability Support Services, Trans.) (pp. 71). Doncaster, Vic: Manningham City Council.
Social Policy Research Centre. (2009). Promoting social networks for older people in community aged care. *Research to Practice Briefing 2 February 2009* Retrieved 20 March 2009, 2009, from http://www.bensoc.org.au/uploads/documents/research-to-practice-briefing2-OLDER_PEOPLES_SOCIAL_NETWORKS-feb2009.pdf.
Sorkin, D., Rook, K. S., & Lu, J. L. (2002). Loneliness, lack of emotional support, lack of companionship, and the likelihood of having a heart condition in an elderly sample *Annals of Behavioral Medicine, 24*(4), 290-298. doi: 10.1207/S15324796ABM2404_05.
Steed, L., Boldy, D., Grenade, L., & Iredell, H. (2007). The demographics of loneliness among older people in Perth, Western Australia. *Australasian Journal on Ageing, 26*(2), 81-86.
Stek, M. L., Vinkers, D. J., Gussekloo, J., Beekman, A. T., & et al. (2005). Is Depression in Old Age Fatal Only When People Feel Lonely? *The American Journal of Psychiatry, 162*(1), 178-180.
Strawbridge, W. J., Wallhagen, M. I., & Cohen, R. D. (2002). Successful aging and well-being: Self-rated compared with Rowe and Kahn. *The Gerontologist, 42*(6), 727.
Sugisawa, H., Liang, J., & Liu, X. (1994). Social networks, social support, and mortality among older people in Japan. *Journal of Gerontology, 49*(1), S3.
Sullivan, H. S. (1953). *The Interpersonal Theory of Psychiatry*. New York: Norton.
Sun, R., & Liu, Y. (2006). Mortality of the Oldest Old in China: The Role of Social and Solitary Customary Activities. *Journal of Aging and Health, 18*(1), 37-55.
Swindell, R. (2000). Using the Internet to Build Bridges to Isolated Older People. *Australasian Journal on Ageing, 19*(1), 38-40.
Tan, J., Ward, L., & Ziaian, T. (2010). Experiences of Chinese Immigrants and Anglo-Australians Ageing in Australia: A Cross-cultural Perspective on Successful Ageing. *Journal of Health Psychology 15*(5), 697-706. doi: 10.1177/1359105310368183.
Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks: Sage Publications, Inc.

Tate, R. B., Lah, L., & Cuddy, T. E. (2003). Definition of successful aging by elderly Canadian males: The Manitoba Follow-Up Study. *The Gerontologist, 43*(5), 735.
Taylor, M. G., & Lynch, S. M. (2004). Trajectories of Impairment, Social Support, and Depressive Symptoms in Later Life. *The Journals of Gerontology, 59B*(4), S238.
Taylor, S. A. P. (2001). Place identification and positive realities of aging. *Journal of Cross-Cultural Gerontology, 16*(1), 5-20. doi: 10.1023/a:1010673000367.
Teddlie, C., & Tashakkori, A. (2003). Major Issues and Controversies in the Use of Mixed Methods in the Social and Behavioral Sciences. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (pp. 3-50). Thousand Oaks: Sage Publications Inc.
Teddlie, C., & Tashakkori, A. (2009). *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. Thousand Oaks: SAGE Publications, Inc.
Terrill, L., & Gullifer, J. (2010). Growing Older. *Journal Of Health Psychology, 15*(5), 707-715. doi: 10.1177/1359105310368180.
The Chinese Culture Connection. (1987). Chinese Values and the Search for Culture-Free Dimensions of Culture. *Journal of Cross-Cultural Psychology, 18*(2), 143-164. doi: 10.1177/0022002187018002002.
The Institute for Optimal Aging. (2012) Retrieved 1 August 2013, from www.optimalaging.com.
The Market Research Society. (2005). MRS Code of Conduct Retrieved 24 February 2010, from http://www.mrs.org.uk/standards/downloads/CodeofConduct2010.pdf.
Theeke, L. A. (2009). Sociodemographic and Health-Related Risks for Loneliness and Outcome Differences by Loneliness Status in a Sample of U.S. Older Adults. *Research in Gerontological Nursing, On-line advanced release*.
Thomas, D. R. (2006). A general inductive approach for qualitative data analysis. *American Journal of Evaluation, 27*(2), 237-246. doi: 10.1177/1098214005283748.
Tiikkainen, P., & Heikkinen, R.-L. (2005). Associations between loneliness, depressive symptoms and perceived togetherness in older people. *Aging & Mental Health, 9*(6), 526-534.
Torres, S. (1999). A culturally-relevant theoretical framework for the study of successful ageing. *Ageing & Society, 19*(01), 33-51.
Torres, S. (2006). Different Ways of Understanding the Construct of Successful Aging: Iranian Immigrants Speak About What Aging Well Means to Them. *Journal of Cross-Cultural Gerontology, 21*(1), 1-23. doi: 10.1007/s10823-006-9017-z.
Triandis, H. C. (1995). *Individualism & Collectivisim*. Boulder: Westview Press.
Trochim, W. M. (2006). The Research Methods Knowledge Base Retrieved from http://www.socialresearchmethods.net/kb/
Tsang, E. Y. L., Liamputtong, P., & Pierson, J. (2004). The views of older Chinese people in Melbourne about their quality of life. *Ageing & Society, 24*(01), 51-74.
Turrell, G., Oldenburg, B., McGuffog, I., & Dent, R. (1999). Socioeconomic Determinants of Health: Towards a National Research Program and a Policy and Intervention Agenda. Canberra: Queensland University of Technology, School of Public Health.
Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The Relationship Between Social Support and Physiological Processes: A Review With Emphasis on Underlying Mechanisms and Implications for Health. Article. *Psychological Bulletin, 119*(3), 488-531.
United Nations. (2007). World Economic and Social Survey 2007 Development in an Ageing World, *E/2007/50/Rev.1ST/ESA/314ISBN 978-92-1-109154-0 (pp.212)*. New York.
Vaillant, G. E. (2002). *Aging well.* New York: Little, Brown and Company.

Vaillant, G. E., & Mukamal, K. (2001). Successful Aging. *American Journal of Psychiatry, 158*(6), 839-847. doi: 10.1176/appi.ajp.158.6.839.
van Baarsen, B., Snijders, T., Smit, J., & van Duijn, M. (2001). Lonely but not alone: emotional isolation and social isolation as two distinct dimensions of loneliness in older people. *Educational and Psychological Measurement, 61*(1), 119-135.
Van Brakel, W. H. (2006). Measuring health-related stigma - A literature review. *Psychology, Health & Medicine, 11*(3), 307 - 334.
van Ravesteijn, H., Lucassen, P., & van der Akker, M. (2008). GPs experiences with loneliness. *Australian Family Physician, 37*(11), 973.
van Tilburg, T., de Jong Gierveld, J., Lecchini, L., & Marsiglia, D. (1998). Social Integration and Loneliness: A Comparative Study among Older Adults in the Netherlands and Tuscany, Italy. *Journal of Social and Personal Relationships 15*(6), 740-754. doi: 10.1177/0265407598156002.
van Tilburg, T., Havens, B., & de Jong-Gierveld, J. (2004). Loneliness among Older Adults in the Netherlands, Italy, and Canada: A Multifaceted Comparison. *Canadian Journal on Aging / La Revue canadienne du vieillissement, 23*(2), 169-180.
Vassar, M., & Crosby, J. W. (2008). A Reliability Generalization Study of Coefficient Alpha for the UCLA Loneliness Scale. *Journal of Personality Assessment, 90*(6), 601 - 607. doi: 10.1080/00223890802388624.
Victor, C. R., Grenade, L., & Boldy, D. (2006). Measuring loneliness in later life: a comparison of differing measures. *Reviews in Clinical Gerontology, 15*(01), 63-70.
Victor, C. R., Scambler, S. J., Bowling, A., & Bond, J. (2005). The prevalence of, and risk factors for, loneliness in later life: a survey of older people in Great Britain. *Ageing & Society, 25*(06), 357-375.
Victor, C. R., Scambler, S. J., Shah, S., Cook, D. G., Harris, T., Rink, E., et al. (2002). Has loneliness amongst older people increased? An investigation into variations between cohorts. *Ageing & Society, 22*, 585-597.
Victorian Multicultural Commission. (2009). Population Diversity in Local Councils in Victoria: 2006 Census Retrieved 2 July 2010, from http://www.multicultural.vic.gov.au/population-and-migration/victorias-diversity/population-diversity-in-local-councils.
Walker, A. (2002). A strategy for active ageing. *International Social Security Review, 55*, 121-139.
Walker, A., & Maltby, T. (1997). *Ageing Europe*. Buckingham: Open University Press.
Walsemann, K. M., Geronimus, A. T., & Gee, G. C. (2008). Accumulating Disadvantage Over the Life Course: Evidence From a Longitudinal Study Investigating the Relationship Between Educational Advantage in Youth and Health in Middle Age. *Research On Aging, 30*(2), 169-199. doi: 10.1177/0164027507311149.
Wang, Y.-T., & Lin, W.-I. (2012). Successful ageing: The case of Taiwan. *Australasian Journal on Ageing, 31*(3), 141-146. doi: 10.1111/j.1741-6612.2011.00556.x.
Warburton, D. E. R., Nicol, C. W., & Bredin, S. S. D. (2006). Health benefits of physical activity: the evidence. *Canadian Medical Association. Journal, 174*(6). doi: 10.1503/cmaj.051351.
Ware, J. E. (2013). SF-36® Health Survey Update, from http://www.sf-36.org/tools/sf36.shtml
Ware, J. E., & Sherbourne, C. D. (1992). The MOS 36-Item Short-Form Health Survey (SF-36): I. Conceptual Framework and Item Selection. *Medical Care, 30*(6), 473-483.
Warr, D. (2006). There goes the neighbourhood: the malign effects of stigma Vol. 19:1-11. Retrieved from http://ebookbrowse.com/social-city-19-warr-pdf-d312966650.
Warren, M. W. (1946). Care of the chronic aged sick. *Lancet, 247*(6406), 841-843.

Webb, A. K., Jacobs-Lawson, J. M., & Waddell, E. L. (2009). Older adults perceptions of mentally ill older adults. *Aging & Mental Health, 13*(6), 838 - 846.
Weeks, D. J. (1994). A review of loneliness concepts, with particular reference to old age. *International Journal of Geriatric Psychiatry, 9*(5), 345-355.
Weir, P. L., Meisner, B. A., & Baker, J. (2010). Successful Aging across the Years: Does One Model Fit Everyone? *Journal of Health Psychology 15*(5), 680-687. doi: 10.1177/1359105309353648.
Weiss, M. G., Jadhav, S., Raguram, R., Vounatsou, P., & Littlewood, R. (2001). Psychiatric stigma across cultures: local validation in Bangalore and London. *Anthropology & Medicine, 8*(1), 71 - 87.
Weiss, M. G., Ramakrishna, J., & Somma, D. (2006). Health-related stigma: Rethinking concepts and interventions. *Psychology, Health & Medicine, 11*(3), 277 - 287.
Weiss, R. S. (1973). *Loneliness: The Experience of Emotional and Social Isolation* (Fifth printing ed.). Cambridge, MA: MIT Press.
Weiss, R. S. (1982). Issues in the Study of Loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A Sourcebook of Current Theory, Research and Therapy* (pp. 71-80). New York: John Wiley and Sons.
Wen, M., Browning, C. R., & Cagney, K. A. (2003). Poverty, affluence, and income inequality: neighborhood economic structure and its implications for health. *Social Science & Medicine, 57*(5), 843-860.
Wen, M., Hawkley, L. C., & Cacioppo, J. T. (2006). Objective and perceived neighborhood environment, individual SES and psychosocial factors, and self-rated health: An analysis of older adults in Cook County, Illinois. *Social Science & Medicine, 63*(10), 2575-2590.
Wenger, G., & Burholt, V. (2003). Changes in Levels of Social Isolation and Loneliness among Older People in a Rural Area: A Twenty-Year Longitudinal Study. *Canadian Journal on Aging, 23*(2), 115-127.
West, D. A., Kellner, R., & Moore-West, M. (1986). The Effects of Loneliness: A Review of the Literature. *Comprehensive Psychiatry, 27*(4), 351-363.
Wight, R. G., Cummings, J. R., Miller-Martinez, D., Karlamangla, A. S., Seeman, T. E., & Aneshensel, C. S. (2008). A multilevel analysis of urban neighborhood socioeconomic disadvantage and health in late life. *Social Science & Medicine, 66*(4), 862-872.
Wilson, R. S., Krueger, K. R., Arnold, S. E., Schneider, J. A., Kelly, J. F., Barnes, L. L., et al. (2007). Loneliness and Risk of Alzheimer Disease. *Archives of General Psychiatry, 64*, 234-240.
Wolinsky, F. D., Wyrwich, K. W., Babu, A. N., Kroenke, K., & Tierney, W. M. (2003). Age, aging, and the sense of control among older adults: A longitudinal reconsideration. *The Journals of Gerontology, 58B*(4), S212.
Wong, F., Lam, Y., & Poon, A. (2010). Depression literacy among Australians of Chinese-speaking background in Melbourne, Australia. *BMC Psychiatry, 10*(1), 7.
Woolley, C. M. (2009). Meeting the Mixed Methods Challenge of Integration in a Sociological Study of Structure and Agency. *Journal of Mixed Methods Research, 3*(1), 7-25. doi: 10.1177/1558689808325774.
World Health Organization. (1946). Constitution of The World Health Organisation Retrieved 6 February 2010, from http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf.
World Health Organization. (2001). The World Health Report 2001 (pp. 178): World Health Organization.

World Health Organization. (2002). Active Ageing A Policy Framework *Ageing and Life Course*: WHO/NMH/NPH/02.8.
World Health Organization. (2011). Rio Political Declaration on Social Determinants of Health Retrieved 17 June 2013, from http://www.who.int/sdhconference/declaration/Rio_political_declaration.pdf.
World Health Organization. (2013). Social Determinants Retrieved 26 April 2013, from http://www.euro.who.int/en/what-we-do/health-topics/health-determinants/social-determinants.
Wu, D. Y. H. (1985). Child training in Chinese culture. In D. Y. H. Wu & W.-S. Tseng (Eds.), *Chinese culture and mental health* (pp. 113-134). New York: Academic Press.
Wu, Z. Q., Sun, L., Sun, Y.-H., Zhang, X.-J., Tao, F.-B., & Cui, G.-H. (2010). Correlation between loneliness and social relationship among empty nest elderly in Anhui rural area, China. *Aging & Mental Health, 14*(1), 108 - 112.
Yang, K., & Victor, C. R. (2008). The prevalence of and risk factors for loneliness among older people in China. *Ageing and Society, 28*(03), 305-327. doi: 10.1017/S0144686X07006848.
Yang, L. H. (2007). Application of mental illness stigma theory to Chinese societies: synthesis and new directions. *Singapore Medical Journal, 48*(November), 977-985.
Yang, L. H., Kleinman, A., Link, B. G., Phelan, J. C., Lee, S., & Good, B. (2007). Culture and stigma: Adding moral experience to stigma theory. *Social Science & Medicine, 64*(7), 1524-1535.
Yao, L., & Robert, S. A. (2008). The Contributions of Race, Individual Socioeconomic Status, and Neighborhood Socioeconomic Context on the Self-Rated Health Trajectories and Mortality of Older Adults. *Research On Aging,, 30*(2), 251-273. doi: 10.1177/0164027507311155.
Yen, I. H., Michael, Y. L., & Perdue, L. (2009). Neighborhood Environment in Studies of Health of Older Adults: A Systematic Review. *American Journal of Preventive Medicine, 37*(5), 455-463.
Yin, R. (2006). Mixed Methods Research: Are the Methods Genuinely Integrated or Merely Parallel? *Research in the Schools, 13*(1), 41.
Yu, L. C., & Wang, M. (1993). Social status, physical, mental health, well-being and self evaluation of elderly in China. *Journal of Cross-Cultural Gerontology, 8*(2), 147-159.
Yu, L. C., Zhang, A. Y., Draper, P., Kassab, C., & Miles, T. (1997). Cultural correlates of self perceived health status among Chinese elderly. *Journal of Cross-Cultural Gerontology, 12*(1), 73-89.
Yu, Y., Chamorro-Premuzic, T., & Tani, I. (2008). Personality and health in Japanese older adults. *Aging & Mental Health, 12*(3), 382 - 388.
Yu., S. (2005). Identity Construction of the Chinese Diaspora, Ethnic Media Use, Community Formation, and the Possibility of Social Activism. *Continuum: Journal of Media & Cultural Studies, 19*(1), 55-72. doi: DOI: 10.1080/1030431052000336298
Zarit, S. H. (2009). A Good Old Age: Theories of Mental Health and Aging. In V. L. Bengtson, M. Silverstein, N. M. Putney & D. Gans (Eds.), *Handbook of Theories of Aging* (pp. 675-691). New York: Springer Publishing Company.
Zhang, H., & Baker, G. (2008). *Think Like Chinese*. Sydney, Australia: The Federation Press.
Zunzunegui, M. V., Beland, F., & Otero, A. (2001). Support from children, living arrangements, self-rated health and depressive symptoms of older people in Spain. *International Journal of Epidemiology, 30*(5), 1090.
Zunzunegui, M. V., Kone, A., Johri, M., Beland, F., Wolfson, C., & Bergman, H. (2004). Social networks and self-rated health in two French-speaking Canadian community dwelling populations over 65. *Social Science & Medicine, 58*(10), 2069-2081.

Appendices

Appendix A

Human Ethics Certificate of Approval

MONASH University

Standing Committee on Ethics in Research Involving Humans (SCERH)
Research Office

Human Ethics Certificate of Approval

Date:	**29 January 2008**
Project Number:	**2007002061 - CF07/4746**
Project Title:	**Loneliness and health status of Manningham seniors**
Chief Investigator:	**Prof Helen Keleher**
Approved:	**From 29 January 2008 to 29 January 2013**

Terms of approval

1. Approval is only valid whilst you hold a position at Monash University.
2. It is the responsibility of the Chief Investigator to ensure that all pending information (such as permission letters from organisations) is forwarded to SCERH. Research cannot begin at an organisation until SCERH receives a permission letter from that organisation.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by SCERH.
4. You should notify SCERH immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project:** Requires the submission of a Request for Amendment form to SCERH and must not begin without written approval from SCERH. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. SCERH should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by SCERH at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

[redacted]
Dr Souheir Houssami
Executive Officer, Human Research Ethics (on behalf of SCERH)

Cc Dr Charles Livingstone;

Postal – Monash University, Vic 3800, Australia
Building 3E, Room 111, Clayton Campus, Wellington Road, Clayton
[redacted] Facsimile +61 3 9905 1420
[redacted] www.monash.edu/research/ethics/human/index/html
ABN 12 377 614 012 CRICOS Provider #00008C

Appendix B

CATI Interview Questionnaire

Sample variables
Surname
Street number
Street
Suburb
Post code
State
Telephone number
Sample type 1 – General population
Sample type 2 – Chinese booster

Call outcome codes (SMS screen)
Proceed with interview
No answer
Answering machine
Fax machine / modem
Engaged
Telstra message / Disconnected
Appointment
Named person not known (only applies if calling back to keep an appointment and phone answerer denies knowledge of named person)
Claims to have done survey
Away for duration
LOTE – Follow up
LOTE – No follow up
LOTE – language not established
No one 65 plus in household
Too old / frail / deaf / unable to do survey
Stopped Interview
Terminated during screening / midway (HIDDEN CODE)
Not a residential number

***Introduction and screening**

*(PHONE ANSWERER)

Intro1 Hello. My name is (…) calling on behalf of the City of Manningham and Monash University from the Social Research Centre. We're conducting a study which looks at health issues that affect senior residents of Manningham. The results of this study will be used to help improve local services in your area.

1. Continue (GO TO INTRO 2)
2. Household refusal (GO TO RR1)
3. Queried about how number was obtained (GO TO PTEL)
4. Wants more information (GO TO PINFO)
5. Language difficulty (Target language) (GO TO PLOTE)
6. Not a resident of Manningham (GO TO TERM 2)
7. No senior residents live within the household (GO TO TERM 3)
8. None of these (GO TO TERM 2)

*(PHONE ANSWERER)

Intro 2 :To see if someone in this household is able to help with this study may I please speak to someone at home aged 65 years or older to complete the survey ?

IF SOMEONE 65 YEARS OF AGE OR OLDER NOT AVAILABLE MAKE APPOINTMENT
IF NO-ONE 65 YEARS OR OLDER, GO TO TERMINATION SCRIPT

IF NECESSARY: This call is for public health research and is NOT a sales call. Any information provided is protected by strict Commonwealth and State privacy laws.

1. Continue with phone answerer (GO TO Intro2a). (English respondents go to LOCDUM)
2. New respondent – reintroduce
3. Phone answerer refusal (GO TO RR1)
4. Make appointment (collect name of selected person)
5. Wants more information (GO TO PINFO)
6. No one living in household 65 years or older (GO TO TERM3)

(*If Chinese boost sample continue. Others go to Intro 3)
*(Pre Intro2A Chinese sample only)
Intro2a We are interested in speaking with people of particular backgrounds. Is there anyone in this household who was born in < *China or Hong Kong*>, or has a PARENT born in < *China or Hong Kong*>, or consider themselves as Chinese ethnic origin?

IF NECESSARY: Were interested to speak to people of <Chinese > background to make sure we get as good a coverage of the Manningham population as possible.

1. Yes (Include as Sample type 2)
2. No (GO TO TERMINATION SCRIPT 4)

(*ALL)
LOCDUM INTERVIEWER CONFIRM SUBURB OF HOUSEHOLD
Can I just confirm the suburb in which you live?

1. Bulleen
2. Doncaster
3. Doncaster East
4. Donvale
5. Park Orchards
6. Templestowe
7. Templestowe Lower
8. Warrandyte
9. Wonga Park
9. None of these (GO TO TERM 2)
10. Refused (GO TO TERM 2)

(GO TO INTRO 3)

PRE PLOTE – ONLY DISPLAY IF INTRO 1=CODE 5)
PLOTE RECORD PREFERRED LANGUAGE OF INTERVIEW:

1. Mandarin (CONTINUE)
2. Cantonese (CONTINUE)
3. English (CONTINUE)

(GO TO INTRO 3)

*(WANTS MORE INFORMATION)
PINFO If you would like more information, we can send a letter to explain the nature of the research.

The aim of the study is to determine whether loneliness and other health issues affect senior residents of Manningham. Participation in this study is entirely voluntary and all answers you provide will be kept strictly confidential and you will not be identified in the results in any way. You can stop the interview at any time.

1. Respondent would like to be sent a copy of the letter (GO TO PLET)
2. Letter not required – continue on with survey (GO TO LOCDUM)
3. Household refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
4. Respondent refusal (ATTEMPT CONVERSION / RECORD) (GO TO RR1)

*(WANT TO RECEIVE A COPY OF THE LETTER)

PLET Would you like us to mail or fax you a copy of the letter?

1. Mail (RECORD NAME AND VERIFY ADDRESS DETAILS FROM SAMPLE / COLLECT ADDRESS DETAILS) (GO TO PNAME1)
2. Fax (COLLECT NAME AND FAX NUMBER) (GO TO PNAME1)

(GO TO INTRO 2)

*PROGRAMMER NOTE: SET UP !GETDET IN USUAL WAY

*(QUERIED HOW TELEPHONE NUMBER WAS OBTAINED)

PTEL Your telephone number has been chosen at random from the white pages. We find that this is the best way to obtain a representative sample of residents of the City of Manningham for our research.

1. Snap back to previous question

*(SELECTED RESPONDENT)

Intro3

We'll be asking you questions about your health and social networks and your involvement in your local community. Any information you give will be completely confidential and your own answers will not be able to be identified. It will take 15 minutes, depending on your answers. Do you have any questions before we start?

1. Continue
2. Selected respondent refusal (GO TO RR1)
3. Make appointment (TYPE STOP, MAKE APPOINTMENT)

*(SELECTED RESPONDENT)

Intro4. This interview may be monitored for quality purposes – to check I am doing my job properly – is that ok?

1. Monitoring allowed
2. Monitoring not permitted

***Section A Health**

Aintro To start off with, I'm going to ask you a number of questions that ask for views about your health. This information will help us understand how you are feeling and how well you are able to do your usual activities. If at any stage I ask you a question that you don't want to answer please let me know and we'll move onto the next question.

1. Continue

*(ALL)

Q1 In general, would you say your health is:

1. Excellent

2. Very good
3. Good
4. Fair
5. Poor
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)
Q2 Compared to one year ago, how would you rate your health in general now? Would you say…

1. Much better now than one year ago
2. Somewhat better now than one year ago
3. About the same now as one year ago
4. Somewhat worse now than one year ago
5. Much worse now than one year ago
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)
Q3 The following statements are about activities you might do during a typical day. Does your health (now), limit you in these activities? If so, how much? (READ OUT)

RANDOMISE STATEMENTS
a. Vigorous activities such as running, lifting heavy objects, participating in strenuous sports
b. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf
c. Lifting or carrying groceries
d. Climbing several flights of stairs
e. Climbing one flight of stairs
f. Bending, kneeling or stooping
g. Walking more than one kilometre
h. Walking several blocks
i. Walking one block
j. Bathing or dressing yourself

RESPONSE FRAME (READ OUT)
1. Yes, limited a lot
2. Yes, limited a little
3. Not limited at all
4. (Don't know)
5. (Refused)

*(ALL)
Q4 During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your PHYSICAL health? (READ OUT)

STATEMENTS
1. Cut down on the amount of time you spent on work or other activities
2. Accomplished less than you would like
3. Were limited in the kind of work or other activities
4. Had difficulty performing the work or other activities (extra effort needed)

RESPONSE FRAME
1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)

Q5 During the past 4 weeks, TO WHAT EXTENT has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbours, or groups? Would you say…..(READ OUT)

1. Not at all
2. Slightly
3. Moderately
4. Quite a bit
5. Extremely
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)
Q6 During the past 4 weeks, HOW MUCH OF THE TIME has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives etc)? Would you say… (READ OUT)

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)
Q7 How much PHYSICAL PAIN have you had during the past 4 weeks? Would you say….(READ OUT)

1. None (GO TO Q9)
2. Very mild (GO TO Q8)
3. Mild (GO TO Q8)
4. Moderate (GO TO Q8)
5. Severe (GO TO Q8)
6. Very severe (GO TO Q8)
7. (Don't know) (DO NOT READ) (GO TO Q8)
8. (Refused) (DO NOT READ) (GO TO Q8)

PREQ8 (Q7 CODES 2-8 EXPERIENCED PAIN)
Q8 During the past 4 weeks, how much did PAIN interfere with your normal work (including both work outside the home and housework)? Would you say….(READ OUT)

1. Not at all
2. A little bit
3. Moderately
4. Quite a bit
5. Extremely
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)
Q9 During the past 4 weeks, have you had any of the following problems with your work or other regular activities as a result of any EMOTIONAL problems (such as feeling depressed or anxious)? (READ OUT)

STATEMENTS
1. Cut down on the amount of time you spent on work or other activities
2. Accomplished less than you would like
3. Didn't do work or other activities as carefully as usual

RESPONSE FRAME
1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
Q10 The following questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling for each statement. In the last 4 weeks, about how often: (READ OUT)

STATEMENTS
1. Did you feel full of life?
2. Have you been a very nervous person?
3. Have you felt so down in the dumps that nothing could cheer you up?
4. Have you felt clam and peaceful?
5. Did you have a lot of energy?
6. Have you felt downhearted and blue?
7. Did you feel worn out?
8. Have you been a happy person?
9. Did you feel tired?

RESPONSE FRAME (READ OUT)
1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)
Q11a The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by stating Never, Rarely, Sometimes, or Always. How often do you feel? (READ OUT)

STATEMENTS (READ OUT)
1. That you have a lot in common with the people around you
2. Close to people
3. That there are people that really understand you
4. That there are people you can talk to

RESPONSE FRAME (READ OUT)
1. Always
2. Sometimes
3. Rarely
4. Never
5. (Don't know) (DO NOT READ)
6. (Refused) (DO NOT READ)

Q11b And how often do you feel……?

1. That you lack companionship
2. Left out
3. That no one knows you really well
4. Isolated from others
5. That people are around you but not with you

RESPONSE FRAME (READ OUT)

1. Never
2. Rarely
3. Sometimes
4. Always
5. Don't know (DO NOT READ)
6. Refused (DO NOT READ)

*(ALL)

Q12 Please answer true or false for each of the following statements (READ OUT)

STATEMENTS

1. I seem to get sick a little easier than other people
2. I am as healthy as anybody I know
3. I expect my health to get worse
4. My health is excellent

RESPONSE FRAME (READ OUT)

1. Definitely true
2. Mostly true
3. Mostly false
4. Definitely false
5. (Don't know) (DO NOT READ)
6. (Refused) (DO NOT READ)

*(ALL)

Q13 Which of the following apply to you? Has your doctor told you that you (have/are): (READ OUT)

1. Diabetes (high blood sugar)
2. Hypertension (high blood pressure)
3. Heart or coronary disease
4. Tuberculosis
5. Depression or anxiety
6. Kidney disease
7. Liver disease
8. Cancer (please specify)
9. Arthritis
10. Emphysema
11. Asthma
12. Had a stroke
13. Obese or overweight
14. Osteoporosis

RESPONSE FRAME

1. Yes
2. No
3. (Don't know) (DO NOT READ)
4. (Refused) (DO NOT READ)

*(ALL)

Q14 Do you smoke? (READ OUT)

1. Yes (GO TO BINTRO)
2. No (GO TO Q15)
3. Don't know (DO NOT READ) (GO TO Q15)
4. Refused (DO NOT READ) (GO TO Q15)

PREQ15 (Q14 NOT SMOKED Q14 CODES 2-4. OTHERS TO BINTRO)

Q15 Have you ever smoked? (READ OUT)

1. Yes
2. No
3. Don't know (DO NOT READ)
4. Refused (DO NOT READ)

Section B. Social Support

*(ALL)
Bintro The next few questions relate to your social network and types of social support. If you are unsure about how to answer a question, please give the best answer you can.

1. Continue

*(ALL)
Q16 Please answer yes or no to the following statements. Are you a member of? (READ OUT)

STATEMENTS
1. A sports group
2. A church group
3. A school group
4. A professional group or academic society
5. Any other community group
6. One or more of these groups (AUTOFILL IF CODED MORE THAN ONE GROUP)

RESPONSE FRAME
1. Yes (GO TO NEXT STATEMENT)
2. No (GO TO NEXT STATEMENT)
3. (Don't know) (DO NOT READ)(GO TO THE NEXT STATEMENT)
4. (Refused) (DO NOT READ) (GO TO THE NEXT STATEMENT)

*(ALL)
Q17 About how many people did you talk to yesterday? Would you say….(READ OUT)

1. None at all
2. Less than 5
3. 5 or more
4. Many, at least 10
5. (Don't know) (DO NOT READ)
6. (Refused) (DO NOT READ)

*(ALL)
Q18 Can you get: (READ OUT)

1. Help from friends when you need it
2. Help from family members when you need it
3. Help from neighbours when you need it
4. Access to community services or resources when you need them?

RESPONSE FRAME (READ OUT)
1. No, not at all
2. Not often
3. Sometimes
4. Yes, definitely
5. (Don't know) (DO NOT READ)
6. (Refused) (DO NOT READ)

*(ALL)
Q19 Please answer yes or no to the following three statements. (READ OUT)

STATEMENTS
1. Could you raise $2000 within 2 days of an emergency?
2. Do you get any help from volunteer based organisations?
3. Could one of your relatives or friends care for you or your children in an emergency?

RESPONSE FRAME
1. Yes
2. No
3. (Don't know) (DO NOT READ)
4. (Refused) (DO NOT READ)

*(ALL)
Q20 How often do you participate in the following activities? (READ OUT)

STATEMENTS
1. Organised groups (i.e. senior citizens centres, clubs etc)
2. Attend church
3. Socialise with a group of friends
4. Talk daily with friends or neighbours
5. Spend a lot of time by yourself
6. Talk daily with family
7. Socialise with family
8. Spend several hours a day with your family

RESPONSE FRAME (Would you say…)
1. Never
2. Rarely
3. Sometimes
4. Always
5. (Don't know) (DO NOT READ)
6. (Refused) (DO NOT READ)

Section C. Transport in Manningham

*(ALL)
Cintro The next few questions relate to transport in your local area. If you are unsure about how to answer a question, please give the best answer you can.

1. Continue

*(ALL)
Q22 What is your main or primary SOURCE of transportation? Is it? (READ OUT)

1. Yourself
2. Family
3. Friends
4. Public transport
5. Community agency
6. Other (please specify)
7. (Don't know) (DO NOT READ)
8. (Refused) (DO NOT READ)

*(ALL)
Q23 What is your main TYPE of transport? (READ OUT)

1. Walking
2. Car (GO TO Q26)
3. Bus
4. Train

5. Scooter
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

PREQ24 (IF ANSWERED Q23 CODES 1,3,4-7 CONT. OTHERS TO DINTRO)
Q24 How satisfied are you with the public transport available to you in Manningham? Would you say….. (READ OUT)

1. Very satisfied (GO TO Q26)
2. Satisfied (GO TO Q26)
3. Somewhat satisfied (GO TO Q26)
4. Dissatisfied (GO TO Q25)
5. Very dissatisfied (GO TO Q25)
6. Not applicable (GO TO Q26)
7. (Don't know) (DO NOT READ) (GO TO Q26)
8. (Refused) (DO NOT READ) (GO TO Q26)

PREQ25 (Q24 CODES 4-5 DISSATISFIED WITH PUBLIC TRANSPORT)
Q25 Why are you dissatisfied with the public transport available to you in Manningham?

1. Response given (Specify)
2. Don't Know (DO NOT READ)
3. Refused (DO NOT READ)

*(ALL)
Q26 Do you feel you need transportation more often than it is available to you?

1. Yes (GO TO Q27)
2. No (GO TO DINTRO)
3. (Don't know) (DO NOT READ) (GO TO DINTRO)
4. (Refused) (DO NOT READ) (GO TO DINTRO)

PREQ27 (Q26 CODE 1 NEED MORE TRANSPORT)
Q27 What transport would help you the most in your current situation?

1. Car
2. Bus (closer to home)
3. Taxi
4. Train
5. Other (please specify)
2. (Don't know) (DO NOT READ)
3. (Refused) (DO NOT READ)

***Section D. Personal Details**

*(ALL)
Dintro Now for some final questions to make sure we have spoken to a good range of people

1. Continue

*(ALL)
D1. RECORD GENDER

1. Male
2. Female

*(ALL)

D2. Into which of the following age groups do you belong? (READ OUT)

1. 65-69
2. 70-74
3. 75-79
4. 80-84
5. 85+
6. (Don't know) (DO NOT READ)
7. (Refused) (DO NOT READ)

*(ALL)

D3. What is your marital status? Are you currently…… (READ OUT)

1. Married
2. Separated
3. Divorced
4. Widowed
5. De facto
6. Never Married
7. (Don't know) (DO NOT READ)
8. (Refused) (DO NOT READ)

*(ALL)

D4. For how many years have you lived at your current address?

1. Less than one year
2. One year or more (Specify_____) (RANGE 1 TO 60)
3. (All my life / always lived here)
4. (Don't know) (DO NOT READ)
5. (Refused) (DO NOT READ)

*(ALL)

D5. What is your country of birth?

1. Australia
2. China
3. Greece
4. Italy
5. Hong Kong
6. Malaysia
7. Vietnam
8. United Kingdom
9. Germany
10. Poland
11. Netherlands
12. Other (Specify_____)
13. (Don't know) (DO NOT READ)
14. (Refused) (DO NOT READ)

*(ALL)

D6. What is the main language spoken in your home? (READ OUT)

1. English
2. Mandarin
3. Cantonese
4. Greek
5. Italian
6. German
7. Polish
8. Dutch
9. Other (please specify)
10. (Don't know) (DO NOT READ)

11. (Refused) (DO NOT READ)

*(ALL)
D7. How many people, including yourself, normally live in your household?

1. One / just me
2. Number of people given (Specify_____) (RANGE 2-15)
3. (Don't know) (DO NOT READ)
4. (Refused) (DO NOT READ)

*(ALL)
D8. I would now like to ask you about your household income. Before tax is taken out, which of the following ranges best describes your households approximate income, from all sources, over the last 12 months?… (READ OUT)

1. Less than $10,000
2. $10,000 – less than $20,000
3. $20,000 – less than $40,000
4. $40,000 - less than $60,000
5. $60,000 – less than $80,000
6. $80,000 and over
7. (Don't know) (DO NOT READ)
8. (Refused) (DO NOT READ)

*(ALL)
D9 What is your current employment situation? Are you… (READ OUT)

1. Retired
2. Employed
3. Unemployed
4. A student (DO NOT READ)
5. A homemaker
6. Other (Specify_____)
7. (Don't know) (DO NOT READ)
8. (Refused) (DO NOT READ)

*(ALL)
D10 What type of work have you done for most of your life?

1. Enter occupation (Specify_____)
2. Never worked (e.g. house duties)
3. (Don't know) (DO NOT READ)
4. (Refused) (DO NOT READ)

*(ALL)
D11 What is the highest level of education you have completed?

1. Primary school
2. Year 7 to Year 9 (IF NECESSARY or form 1 to form 3)
3. Year 10 (IF NECESSARY or form 4)
4. Year 11 (IF NECESSARY or form 5)
5. Year 12 (IF NECESSARY or form 6)
6. Trade/apprenticeship
7. Other TAFE/ Technical Certificate
8. Diploma
9. Bachelor Degree
10. Post-graduate Degree
11. Other (please specify)
12. (Don' know) (DO NOT READ)
13. (Refused) (DO NOT READ)

*(ALL)
D12 Do you own your own home?

1. Yes
2. No
3. (Don't know) (DO NOT READ)
4. (Refused) (DO NOT READ)

*(ALL)
D13 Do you receive any support services to stay at home, such as home help, meals on wheels, personal or respite care, home maintenance, day programs, Community Aged Care Package etc?

1. Yes
2. No
3. (Don't know) (DO NOT READ)
4. (Refused) (DO NOT READ)

*(ALL)
D14 If the City of Manningham wishes to conduct further research into this study, would you be willing to participate in a face-to-face interview at a time and place convenient to you?

1. Yes (ENGLISH SAMPLE GO TO SECTION E. CHINESE SAMPLE GO TO SNOW1)
2. No (ENGLISH SAMPLE GO TO CLOSE. CHINESE SAMPLE GO TO SNOW1)

***(ASK ALL CHINESE BOOSTER SAMPLE**)

Snow1 As you can appreciate, it is difficult to find people who might qualify for this study– do you happen to know of anyone of Chinese ethnic origin aged 65+, and who lives in the City of Manningham we could call who may be able to help us with this survey? Their participation will be entirely voluntary.

1. Yes (GO TO SECTION F)
2. No – thanks anyway (GO TO CLOSE)

NOTE: IF CHINESE SAMPLE ANSWER D13 CODE 1 AND SNOW1 CODE 1, ASK SECTION E **AND** SECTION F)

*** Section E – Tracking Information to Conduct Further Research**

PRE E1 (IF ANSWERED D14 CODE 1 CONT)
E1 INTRO A: Thank you (...NAME...). We really appreciate your time. There is a possibility the City of Manningham may wish to contact you in the future to conduct further research on this study. To help us we'd like to be able to confirm your details.

IF NECESSARY: Even if you agree to be recontacted now, you will still have the opportunity to choose not participate should you be asked to participate in the future.

*(D13 Code 1 AGREED TO BE RECONTACTED)
E2name I just need to confirm your contact details for next time. Firstly, I have your name down as:
<DISPLAY TITLE, FNAME & SNAME>
Is this correct?

1. Yes GO TO E2telnum
2. No – DISPLAY AND EDIT NAME, ONE FIELD AT A TIME INCLUDING TITLE, FNAME AND SNAME

*(AGREED TO BE RECONTACTED)
E2telnum The telephone number I have for you is: <DISPLAY TELNUM >
Is this correct?

1. Yes
2. No – ENTER NEW TELNUM (INCLUDE AREA CODE)

*(AGREED TO BE RECONTACTED)
E2altnumb Do you have an alternative number, such as a mobile, we could contact you on next time:

1. Yes – ENTER NEW MOBNUM (INCLUDE AREA CODE)
2. No

*(AGREED TO BE RECONTACTED)
E2address The address I have is: <DISPLAY ADD3, ADD2, SUBURB, PCODE & STATE>
Is this correct?

1. Yes
2. No – ENTER NEW ADDRESS DETAILS IN FOR EVERY FIELD (IE IF WANT TO CHANGE ONE ADDRESS FIELD NEED TO ENTER IN NEW DETAILS FOR ALL FIELDS)

(GO TO CLOSE)

CLOSE That was my last question. Thank you very much for your time today. You have been speaking to (NAME) calling on behalf of the City of Manningham and Monash University from the Social Research Centre in North Melbourne.

I have a number I can give you if you have any queries about the study (OFFER NUMBER AS REQUIRED). 0447160778: Tess Tsindos, Monash University

*(DOES NOT LIVE IN TARGET AREA)
TERM2 Thanks anyway, but this research is being conducted with residents of specific suburbs.

*(NO ONE LIVING IN HOUSEHOLD 65 PLUS)
TERM3 Thanks anyway, but for this research we need to interview persons aged 65 years or over.

*(CHINESE BOOSTER SAMPLE DOES NOT QUALIFY)
TERM4 Thanks anyway, but for this research we are looking for residents of a specific ethnic background.

*(REFUSED)
RR1 OK, that's fine, no problem, but could you just tell me the main reason you do not want to participate, because that's important information for us?

1. No comment / just hung up
2. Too busy
3. Not interested
4. Too personal / intrusive
5. Don't like subject matter
6. Not applicable
7. Don't believe surveys are confidential / privacy concerns

8. Silent number
9. Don't trust surveys / government
10. Never do surveys
11. 15 minutes is too long
12. Get too many calls for surveys / telemarketing
13. Too old / frail / deaf / unable to do survey (CODE AS TOO OLD / FRAIL / DEAF / UNABLE TO DO SURVEY)
14. Not a residential number (business, etc) (CODE AS NOT A RESIDENTIAL NUMBER)
15. Language difficulty (CODE AS LANGUAGE DIFFICULTY NO FOLLOW UP)
16. Going away / moving house (CODE AS AWAY DURATION)
17. Other (SPECIFY_____)
18. Asked to be taken off list and never called again
19. No one 65 plus living in household (CODE AS NO ONE 65 PLUS LIVING IN HOUSEHOLD)
20. Respondent unreliable / drunk (CODE AS OTHER OUT OF SCOPE)

*(REFUSED)

RR2 RECORD RE-CONTACT TYPE

1. Definitely don't call back
2. Possible conversion

Other requirements

- Allterm (sample type x alterm)
- !getdet

Appendix C

Permission to use Chinese Version of UCLA Loneliness Scale

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

College of Liberal Arts and Sciences
Department of Psychology
W112 Lagomarcino Hall
Ames, IA 50011-3180
E-mail: caa@iastate.edu
Phone: (515) 294-0283
FAX: (515) 294-6424

December, 1999

The first published use of the following Chinese versions of the short form of the Beck Depression Inventory and of the UCLA Loneliness Scale was in:

Anderson, C.A. (1999). Attributional style, depression, and loneliness: A cross-cultural comparison of American and Chinese students. *Personality and Social Psychology Bulletin, 25*, 482-499.

You can find a copy of my attributional style scales, including the Chinese version of ASAT-I, at the following URL: http://psych-server.iastate.edu/faculty/caa/recpub.html.

Researchers may use my scales free of charge for research purposes.

I hope you find these scales useful in your research. I would love to see copies of your research papers that use this scale. Please send them to me at:

Craig A. Anderson, Ph.D.
Department of Psychology
Iowa State University
W112 Lagomarcino Hall
Ames, IA 50011-3180
Thank you!

Sincerely,
Craig A. Anderson, Ph.D.
Professor & Chair

Appendix D

Pilot Face-to-Face Interview Guide

Name: _____
Address: _____
Phone number: _____
Age: _____ Marital Status: _____
Country of Birth: _____
Date of interview: _____

- Introduce myself - My name is Tess Tsindos, PhD student at Monash University, researching health and loneliness in Manningham seniors, used to work at Manningham Council as the manager of the Aged and Disability Services area.

- Explain purpose of interview, how long it will take, explanatory statement, consent form – purpose is to follow up on their telephone interview last year, will take approximately 1 ½ - 2 hours, discuss explanatory statement and give them a copy.

- Explain purpose of recording and show recording equipment – will record the interview and then get the recording typed up, then I'll use the typed interview to find common themes between all interviews.

- Gain consent for interview and recording – show consent form and ask to sign it.

Commence with some practical questions.

What are your current living arrangements?	
If living at home - What role do you have at home? If living independently – do you feel you see enough of your family?	
How did you come to live in Manningham?	
What do you like/dislike about living in Manningham?	
How do you get around in Manningham (transport)?	

Let's move on to talk about your health.

What does good/bad health mean to you?	
How healthy would you say you are?	
Do you feel there is a difference between physical and mental health?	
Does your health impact on your daily activities? How?	
Has your health improved/worsened lately?	

Let's move on to talk about how much socialising you do.

How much socialising would you say you do?	
Who do you socialise with most frequently and how does this come about?	
How do you feel about that (ie, socialising with family)?	
What is a typical day like?	
How much do you get out of the house?	
How much time might you spend alone?	

This moves us now into the topic of loneliness.

Would you say you are lonely? Can you tell me more about that? what it means to you/how you feel/what it is like to be lonely/how loneliness affects you and your family/friends/health/mood, etc?	
When did you first start feeling lonely – a particular event?	
Can you tell me more about what you believe the cause is of your loneliness – is relocation an issue?	
Do your feelings of loneliness come and go? If yes, what makes loneliness go away/what makes it worse?	
What words would you use/how would you describe yourself when you are lonely?	
Do you share your feelings of loneliness with others?	
How does 'love' fit in to loneliness?	
Do you feel your family/friends love you?	

If these are not covered during the interview:

Probe around views of others:

What words would they use/how would they describe other people who might be lonely?
What do they believe the cause of other people's loneliness is? How?
How do they react to lonely people? Why?

Probe around others perception of self:

How to they think other people would describe them? Why?
Do they believe other people can tell they are lonely? How?
How do they believe other people react to their loneliness?

Probe around what to do about loneliness:

Have they ever done something specifically to not be lonely? What?
What do they believe will stop/end their loneliness? How?
Do they believe loneliness is part of ageing? How?
Do they believe loneliness leads to other things, i.e. health conditions? How?

General/wrap up questions. We've talked about health, socialising and loneliness for a while. Can I just wrap up the interview with three questions.

How has your income affected/impacted on their health, socialising and/or loneliness?	
Is there anything else you'd like to tell me about health, socialising and/or loneliness?	
If there was one piece of advice you could give about health, socialising and/or loneliness, what would it be?	

Once the interview is completed and the interviewer is in her car, field notes will be completed on general observations of the interview

MONASH University

Appendix E

Explanatory Statement

Loneliness and Health Status of Manningham Seniors

This information sheet is for you to keep.

My name is Tess Tsindos and I am a Ph.D. student conducting a research project with Professor Helen Keleher, Head of the Department of Health Social Science and Dr Charles Livingstone, Senior Lecturer of the Department of Health Social Science at Monash University. This means that I will be writing a thesis which is the equivalent of a 300 page book, several magazine articles and a report for Manningham City Council. Your anonymous data may be used for other purposes but because it is anonymous data, nobody will be named and you will not be identified in any way.

You have been selected to participate in this research because you agreed to proceed with a face-to-face interview after you completed a telephone interview in February or March 2008 with the Social Research Centre about health and loneliness in Manningham seniors. Your results on the survey indicated that you may be experiencing loneliness and I am conducting this research to find out whether there is a link between the health of Manningham Seniors and levels of loneliness. It is hoped that some information will be come out of this study that will help Manningham seniors live healthier lives or provide advice for healthier living in general. Other telephone survey participants who had similar results to you are also being interviewed. The research is also part of Manningham City Council's Ageing Well in Manningham strategy and the anonymous results will be reported in the Strategy.

The study involves audio taping an interview. This means you agreed to participate and we arranged for me to visit you on _____ at _____ to conduct an interview that is expected to take from 1½ -2 hours to complete. It is not anticipated that there will be inconvenience and/or discomfort to you in participating in this interview and your results will remain anonymous in any written work coming out of the interview.

There is no payment or reward offered, financial or otherwise for your participation in this study.

As mentioned earlier, being in this study is voluntary and you have consented to participate. If you decide to withdraw from the study, you may do so at any time.

Storage of the data collected will adhere to the University regulations and kept on University premises in a locked cupboard/filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

If you would like to be informed of the aggregate research finding, please contact Tess Tsindos on [redacted] Once completed, the findings may be published on Manningham City Council's website www.manningham.vic.gov.au.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a **complaint** concerning the manner in which this research **(**Project Number: CF07/4746 – 2007002061) is being conducted, please contact:
Prof Helen Keleher, PhD, MA, BA, FRCNA Head, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted] Fax 9904 4613 OR Dr Charles Livingstone, PhD, M. Ec. Grad Dip Econ Hist, BA Senior Lecturer, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted]	Human Ethics Officer Standing Committee on Ethics in Research Involving Humans (SCERH) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted] [redacted] [redacted]

Thank you,

Tess Tsindos
Ph.D. Candidate

MONASH University

Appendix F

Consent Form

Loneliness and Health of Manningham Seniors

NOTE: This consent form will remain with the Monash University researcher for their records

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

1. I agree to be interviewed by the researcher ☐ Yes ☐ No
2. I agree to allow the interview to be audio-taped ☐ Yes ☐ No
3. I agree to make myself available for a further interview if required ☐ Yes ☐ No

I understand that my participation is voluntary, that I can choose not to participate in the interview, and if I withdraw from the study I may do so at any time.

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

Participant's name:

Signature

Date:

Thank you,

Tess Tsindos, MA, BA
Ph.D. Candidate
Department of Health Social Science
School of Public Health and Preventive Medicine

Prof Helen Keleher, PhD, MA, BA, FRCNA
Head,
Department of Health Social Science
School of Public Health and Preventive Medicine

MONASH University

Appendix G

Translated Explanatory Statement

解釋性說明

Manningham老人的孤獨和健康／幸福

此說明供您保存

我名字叫Tess Tsindos，目前在莫納什(Monash)大學跟隨健康科學系主任Helen Keleher教授和健康科學系高級講師Charles Livingstone博士進行博士課題研究。這意味著，我要寫一篇相當於３００頁書的論文，几篇雜志文章以及給Manningham市政廳的一篇報告。您提供的信息也有可能用做其他用途，但因為是匿名的，您的身份信息在任何情況下都不會被洩露。

您已被選中參加這項研究，因為您在２００８年3 月或4 月份曾接受社會研究中心的有關老人的健康與孤獨問題的電話訪談，並同意接受進一步的面對面的訪談。有關您的調查結果顯示，您可能感受到孤獨，而我的研究目的，就是要找出居住在Manningham老人的健康狀況和孤獨程度之間是否存在聯系。希望這項研究中搜集到的信息能夠幫助Manningham的老人健康地生活，或者為他們的健康生活提出總體建議。其他一些在電話調查中有類似結果的受訪者也被邀參加這次訪談。者項研究是Manningham市政廳的'Manningham健康養老'計劃的一部分，匿名的結果也會彙報在該計劃中。

這項研究將包括與您進行一次面對面的訪談並錄音。者意味著，我們在電話聯系中定與_____(日)_____(時)去訪問您，進行一次預計1.５至2 小時的訪談。這次訪談應該不會給您帶來不便或者不適。根據訪談內容撰寫的任何書面著作中，您提供的信息都將是匿名的。

參加這項研究您不會得到任何報酬或者獎勵，無論是經濟上還是以其他方式。

如前所述，參加這項研究是自願的。雖然您已經表達了參與的意願，您仍有權利在任何時候退出這項研究。

我們將遵循大學的有關規章制度保存收集到的信息。信息將被保存在大學內上鎖的檔案櫃里五年。研究結果可能是用於出版，但是受訪者的個人信息不會被洩露。

如果您想了解總的研究結果，請聯系Tess Tsindos，電話是0402 105 073 或者發送電子郵件至nag7@student.monash.edu.研究完成後，結果可能會公佈在市政廳的網站上www.manningham.vic.gov.au。

如果您想就任何方面聯系這項研究的有關人員，請聯系: 英文地址:	如果您需要投訴，或者對這項研究(項目編號CF07/4746-2007002061)的開展有任何意見，請聯系:

Prof Helen Keleher, PhD, MA, BA, FRCNA Head, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria Ph 9904 4465 Fax 9904 4613 或者 Dr Charles Livingstone, PhD, M. Ec. Grad Dip Econ Hist, BA Senior Lecturer, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted] Fax 9904 4613	英文地址: Human Ethics Officer Standing Committee on Ethics in Research Involving Humans (SCERH) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted]

非常感謝您的參與

Tess Tsindos

博士研究生

MONASH University

Appendix H

Translated Consent Form

同意書

Manningham老人的孤獨和健康／幸福

注意 這份同意書將由Monash大學研究人員作為檔案保存

我同意參加上述的由Monash大學進行的研究項目。有關人員已經向我說明了項目內容，我已經仔細閱讀，並保存一份解釋聲明。我知道同意參加這項研究意味著:

1. 我同意接受研究人員的訪談	☐ 同意	☐ 不同意
2. 我同意研究人員對訪談內容錄音	☐ 同意	☐ 不同意
3. 我同意在必要的情況下接受後續訪談	☐ 同意	☐ 不同意

我知道參加這項研究是自願的，我有權選擇不參加訪談，並且可以在任何時候退出該項研究。

我知道訪談的內容有可能用於撰寫報告或者發表，但在任何情況下都不會洩露我的名字或者身份信息。

姓名:

簽名:

日期:

感謝您的參與

Tess Tsindos, MA, BA
Ph.D. Candidate
Department of Health Social Science
School of Public Health and Preventive Medicine

Prof Helen Keleher, PhD, MA, BA, FRCNA
Head,
Department of Health Social Science
School of Public Health and Preventive Medicine

Appendix I

Revised Final Face-to-Face Interview Guide

Name: _____
Address: _____
Phone number: _____
Age: _____ Marital Status: _____
Country of Birth: _____
Date of interview: _____

- Introduce myself - My name is Tess Tsindos, PhD student at Monash University, researching health and loneliness in Manningham seniors, used to work at Manningham Council as the manager of the Aged and Disability Services area.

- Explain purpose of interview, how long it will take, explanatory letter, letter of consent – purpose is to follow up on their telephone interview last year, will take from 1 ½ to 2 hours, show explanatory letter and give them a copy.

- Explain purpose of recording and show recording equipment – will record the interview and then get the recording typed up, then I'll use the typed interview to find common themes between all interviews.

- Gain consent for interview and recording – show consent form and ask to sign it.

Commence with some practical questions.

What are your current living arrangements?	
If living at home - What role do you have at home? If living independently – do you feel you see enough of your family?	
How did you come to live in Manningham?	
What do you like/dislike about living in Manningham?	

How do you get around in Manningham (transport)?	

Let's move on to talk about your health.

What does good/bad health mean to you?	
How healthy would you say you are?	
Do you feel there is a difference between physical and mental health?	
Does your health impact on your daily activities? How	
Has your health improved/worsened lately?	

Let's move on to talk about how much socialising you do.

How much socialising would you say you do?	
Who do you socialise with most frequently and how does this come about?	
How do you feel about that (ie, socialising with family)?	
What is a typical day like?	
How much do you get out of the house?	

How much time might you spend alone?	

This moves us now into the topic of loneliness.

Would you say you are lonely? Can you tell me more about that? what it means to you/how you feel/what it is like to be lonely/how loneliness affects you and your family/friends/health/mood, etc?	
When did you first start feeling lonely – a particular event?	
Can you tell me more about what you believe the cause is of your loneliness – is relocation an issue?	
Do your feelings of loneliness come and go? If yes, what makes loneliness go away/what makes it worse?	
What words would you use/how would you describe yourself when you are lonely?	
Do you share your feelings of loneliness with others?	
How does 'love' fit in to loneliness?	
Do you feel your family/friends love you?	
What was it like growing up for you/what was your childhood like?	

If these are not covered during the interview:

Probe around views of others:

What words would they use/how would they describe other people who might be lonely?

What do they believe the cause of other people's loneliness is? How?

How do they react to lonely people? Why?

Probe around others perception of self:
How to they think other people would describe them? Why?
Do they believe other people can tell they are lonely? How?
How do they believe other people react to their loneliness?

Probe around what to do about loneliness:
Have they ever done something specifically to not be lonely? What?
What do they believe will stop/end their loneliness? How?
Do they believe loneliness is part of ageing? How?
Do they believe loneliness leads to other things, i.e. health conditions? How?

General/wrap up questions. We've talked for quite a while about health, socialising and loneliness. Can I just wrap up the interview with three questions.

How has your income affected/impacted on their health, socialising and/or loneliness?	
Is there anything else you'd like to tell me about health, socialising and/or loneliness?	
If there was one piece of advice you could give about health, socialising and/or loneliness, what would it be?	

Once the interview is completed and the interviewer is in her car, field notes will be completed on general observations of the interview

Appendix J

Amended Ethics Approval (email)

Subject: **Monash Human Ethics - CF07/4746 – 2007002061: Loneliness and health status of Manningham seniors**

Date: Mon, 21 Dec 2009 15:59:47 +1100

From: MRO Human Ethics Team

[redacted]

PLEASE NOTE: To ensure speedy turnaround time, this correspondence is now being sent by email only. MUHREC will endeavour to copy all investigators on correspondence relating to this project, but it is the responsibility of the first-named investigator to ensure that their co-investigators are aware of the content of the correspondence.

Prof Helen Keleher
Department of Health Social Science
Faculty of Medicine, Nursing and Health Sciences
Caulfield Campus

21 December 2009

CF07/4746 – 2007002061: Loneliness and health status of Manningham seniors

Dear Researchers,

Thank you for submitting a Request for Amendment to the above named project.

This is to advise that the following amendments have been approved and the project can proceed according to your approval given on 29 January 2008.

1. The inclusion of 2-3 focus groups (8-10 per group) for Chinese residents of Manningham.

Thank you for keeping the Committee informed.

Professor Ben Canny
Chair, MUHREC

Cc: Dr Charles Livingstone; Ms Teresa Nagorka-Tsindos
==========

Human Ethics
Monash Research Office
Building 3E, Room 111
Monash University, Clayton 3800
[redacted]
[redacted]
http://www.monash.edu.au/researchoffice/human/

Appendix K

Focus Group Explanatory Statement

MONASH University

Explanatory Statement

Loneliness and Health Status of Manningham Seniors

This information sheet is for you to keep.

My name is Tess Tsindos and I am a Ph.D. student conducting a research project with Professor Helen Keleher, Head of the Department of Health Social Science and Dr Charles Livingstone, Senior Lecturer of the Department of Health Social Science at Monash University. This means that I will be writing a thesis which is the equivalent of a 300 page book, several magazine articles and a report for Manningham City Council. Your anonymous data may be used for other purposes but because it is anonymous data, nobody will be named and you will not be identified in any way.

You have been selected to participate in this research because you are 65 years or older and of Chinese background living in Manningham. I am conducting this research to find out whether there is a link between the health of Manningham Seniors and levels of loneliness. It is hoped that some information will be come out of this study that will help Manningham seniors live healthier lives or provide advice for healthier living in general. The research is also part of Manningham City Council's Ageing Well in Manningham strategy and the anonymous results will be reported in the Strategy.

The study involves audio taping a focus group. This means you agreed to participate in a focus group that is expected to take from 1½ -2 hours to complete. It is not anticipated that there will be inconvenience and/or discomfort to you in participating in this group and your results will remain anonymous in any written work coming out of the group.

There is no payment or reward offered, financial or otherwise for your participation in this study.

As mentioned earlier, being in this study is voluntary and you have consented to participate. If you decide to withdraw from the study, you may do so at any time.

Storage of the data collected will adhere to the University regulations and kept on University premises in a locked cupboard/filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

If you would like to be informed of the aggregate research finding, please contact Tess Tsindos on [redacted] Once completed, the findings may be published on Manningham City Council's website www.manningham.vic.gov.au.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a **complaint** concerning the manner in which this research **(**Project Number: CF07/4746 – 2007002061) is being conducted, please contact:
Prof Helen Keleher, PhD, MA, BA, FRCNA Head, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted] Fax 9904 4613 OR Dr Charles Livingstone, PhD, M. Ec. Grad Dip Econ Hist, BA Senior Lecturer, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted]	Human Ethics Officer Standing Committee on Ethics in Research Involving Humans (SCERH) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted] [redacted] [redacted]

Thank you,

Tess Tsindos
Ph.D. Candidate

Appendix L

Focus Group Consent Form

MONASH University **Consent Form**

Loneliness and Health of Manningham Seniors

NOTE: *This consent form will remain with the Monash University researcher for their records*

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

1. I agree to be in a discussion group with the researcher ☐ Yes ☐ No
2. I agree to allow the interview to be audio-taped ☐ Yes ☐ No

I understand that my participation is voluntary, that I can choose not to participate, and if I withdraw from the study I may do so at any time.

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

Participant's name:

Signature:

Date:

Thank you,
Tess Tsindos, MA, BA
Ph.D. Candidate
Department of Health Social Science
School of Public Health and Preventative Medicine

Prof Helen Keleher, PhD, MA, BA, FRCNA
Head, Department of Health Social Science
School of Public Health and Preventive Medicine

Appendix M

Translated Focus Group Explanatory Statement

MONASH University

解釋對生說明

Manningham老人的孤獨和健康／幸福

此說明供您保存

我名字叫Tess Tsindos，目前在莫納什(Monash)大學跟隨健康科學系主任Helen Keleher教授和健康科學系高級講師Charles Livingstone博士進行博士課題研究。這意味著，我要寫一篇相當於３００頁書的論文，几篇雜志文章以及給Manningham市政廳的一篇報告。您提供的信息也有可能用做其他用途，但因為是匿名的，您的身份信息將不會被曳露。雖然我們將盡力保持你的信息匿名，但需要注意在個別情況下也許不能夠保證絕對的保密性／匿名性。

您已被選中參加這項研究，因為您現年65歲以上，來自中國，居住在Manningham地區。我進行這項研究的目的是要找出居住在Manningham老人的健康狀況和孤獨望度之間是否存在聯系。希望這項研究中搜集到的信息能夠幫助Manningham的老人健康地生活，或者為他們的健康生活提出總體建議。這項研究是Manningham市政廳的‘Manningham健康養老’計畫的一部分，匿名的結果也會彙報在該計畫中.

這項研究將包括與您參加一次小組討論並錄音。者意味著，您已經同意參加一次預計1.５至2小時的小組討論。這次討論應該不會給您帶來不便或者不適。根據討論內容撰寫的任何書面著作中，您提供的信息都將是匿名的。

參加這項研究您不會得到任何報酬或者獎勵，無論是經濟上還是以其他方式。

如前所述，參加這項研究是自願的，而您已經表達了參與的意願。如果您打算退出這項研究，您應該在簽字認可書面的訪談內容摘要之前說明。

我們將遵循大學的有關規章制度保存收集到的信息。信息將被保存在大學內上鎖的檔案櫃里五年。研究結果可能是用於出版，但是受訪者的個人信息不會被曳露。

如果您想了解總的研究結果，請聯系Tess [redacted].研究完成後，結果會公佈在市政廳的網站上www.manningham.vic.gov.au。

如果您想就任何方面聯繫這項研究的有關人員，請聯系:	如果您需要投訴，或者對這項研究(項目編號 CF07/4746-2007002061)的開展有任何意見，請聯系:
英文地址: Prof Helen Keleher, PhD, MA, BA, FRCNA Head, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted] Fax 9904 4613 或者 Dr Charles Livingstone, PhD, M. Ec. Grad Dip Econ Hist, BA Senior Lecturer, Department of Health Social Science School of Public Health and Preventive Medicine, Monash University, Caulfield Victoria [redacted] Fax 9904 4613	英文地址: Human Ethics Officer Standing Committee on Ethics in Research Involving Humans (SCERH) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted] [redacted] [redacted]

非常感謝您的參與，

Tess Tsindos

博士研究生

Appendix N

Translated Focus Group Consent Form

MONASH University

同意書

Manningham老人的孤獨和健康／幸福

注意: 這份同意書將由莫纳什大學（ Monash University）研究人員作為檔案保存

我同意參加上述的由莫纳什大學進行的研究項目。有關人員已經向我說明了項目內容，我已經仔細閱讀了解釋性聲明，並將其保存为我的档案。我知道同意參加這項研究意味著:

1. 我同意接受研究人員的訪談	☐ 同意	☐ 不同意
2. 我同意允许将訪談內容錄音	☐ 同意	☐ 不同意

我知道參加這項研究是自願的。我可以选择不參加，如果我要退出研究，我随时可以这样做。

我知道訪談的內容有可能用於撰寫報告或者發表，但在任何情況下都不會洩露我的名字或者身份信息。

參与者姓名:

簽名:

日期:

感謝您的參與！

Tess Tsindos, MA, BA
Ph.D. Candidate
Department of Health Social Science
School of Public Health and Preventive Medicine

Prof Helen Keleher, PhD, MA, BA, FRCNA
Head,
Department of Health Social Science
School of Public Health and Preventive Medicine

Appendix O

Translation Certificate

MONASH University

05/12/09

To Whom It May Concern

This is to verify that the accompanying translation has been checked for accuracy and completeness as required by the Human Ethics Committee

Sincerely,

Yaqi Gao [redacted]

Translation and Interpreting Studies

School of Languages, Cultures & Linguistics
Faculty of Arts
Building 11
Clayton Victoria 3800
[redacted] Facsimile +61 3 9905 5437
[redacted]
www.monash.edu.au
ABN 12 377 614 012 CRICOS provider number 00008C

Appendix P

Chinese Focus Group Questions

Welcome and introductions.

MANNINGHAM

What are your current living arrangements?

What do you like about living in Manningham?

How did you come to live in Manningham?

Do you all drive? Do you take public transport at all?

Do you find public transport difficult?

Is there anything about living in Manningham that you dislike?

HEALTH

If we go on to talk about health, what does it mean to you if you say someone you know has good health?

How healthy would you say you are?

You know how people say you can have good mental health and you can have good physical health. Do you believe that there is a difference between mental and physical health? Are they the same? What do you feel about it?

Does your health impact on your daily activities? How?

Has your health worsened or improved lately?

Exercise – how do you feel exercise affects your health?

Are there other things you can think of that are important?

SOCIALISING

Talking about socialising, how much socialising would you say you do?

How often do you leave the house?

Would you say, as far as socialising, when you come to the club you're socialising with your friends. When you have gatherings with your family and children, do you consider that socialising?

Is that different to socialising?

Why?

How often do you see your children/family? Are you satisfied with that?

How much time might you spend alone?

LONELINESS

OK, if we move on to talk about loneliness, what does loneliness mean to you?

Do you think a person could feel lonely and still lead an active life?

Does slowing down mean you become lonely?

And do you think being alone is the same as feeling lonely?

What do you think the difference is between being bored and feeling lonely?

If you ever feel lonely, do you ever tell anyone about that? Why?

As parents, did you tell your children you loved them?

Would you say you know anybody who you would say is lonely?

Do you think that loneliness is part of getting older?

Has your income ever affected/impacted on your health, socialising and/or loneliness?

If there was one piece of advice you could give about health, socialising and/or loneliness, what would it be?

Is there anything you'd like to say about health or loneliness or socialising ... Anything at all?

Thank you very much to everyone.

Appendix Q

Poster presentation – Loneliness and Health Status of Manningham Seniors

2007 Australian Association of Gerontology 40th National Conference, Adelaide SA; and Loneliness and Health Status of Manningham Seniors, 6th National Conference of Emerging Researchers in Ageing Conference 2007, Adelaide, SA.

Appendix R

Oral Presentation – Loneliness and Health Status of Manningham Seniors **2008**

Australian Association of Gerontology 41st National Conference and Emerging Researchers in Ageing 7th National Conference.

Abstract:

Background: This paper reports on research undertaken to understand the relationship between loneliness and self-reported health status in two groups of Manningham seniors. Manningham is a suburban city in Melbourne with a population of approximately 113,000 residents generally considered to have high neighbourhood socio-economic status (SES). Approximately 38% of Manningham's population is from a culturally and linguistically diverse (CALD) background, with Chinese speaking seniors a rapidly growing group. The objective of the research was to determine the prevalence of loneliness and it's demographic correlates to better understand the relationships and to determine how culture influences the loneliness experience.

Methods: A random sample of 100 Chinese speaking and 100 English speaking community dwelling residents 65 years and older participated in computer assisted telephone interviews using a survey constructed from the UCLA Loneliness Scale, SF36 and questions from the Victorian Population Health Survey. Methodological lessons learned were the additional amount of time needed for translating and interpreting when working with individuals from Chinese backgrounds, and the additional time required to interview seniors over the telephone.

Results: 2% of the sample reported feeling lonely always with 17.6% of the sample feeling lonely sometimes. These results are lower than previous published literature. 85% of the sample reported excellent/very good/good health.

Conclusions: The results support the overall low rate of loneliness among seniors and the main body of literature that loneliness is negatively related to self-assessed good health. The low rate of loneliness in Manningham is related to high levels of home ownership, high levels of education, and length of residence in the same home. Further research around the relationship between loneliness, seniors and neighbourhood SES could contribute to the body of literature around SES and health. The challenge in understanding the complexities of the

relationship between loneliness and health and SES will be addressed through more comprehensive, face-to-face interviewing of seniors.

Appendix S

Oral Presentation – Why Friends Matter to Health – The Manningham Study of Chinese and Anglo-Australian Experience

2009 Australian Association of Gerontology 42nd National Conference and Emerging Researchers in Ageing 8th National Conference.

Abstract:

There is a growing evidence base that family and friends are critical to reducing loneliness and that there is a relationship between loneliness and health. Loneliness is linked to poorer health outcomes so understanding what factors reduce loneliness could improve the lives of many older people. This paper presents the findings of mixed-methods sequential explanatory design research in loneliness and health in Anglo Australian and Chinese seniors in the City of Manningham. During the quantitative phase, computer assisted telephone interviews (CATI) were utilised to identify factors that contributed to loneliness and health. During the qualitative phase, semi-structured face-to-face interviews were undertaken to explore perceptions of health, loneliness and socialisation patterns to understand factors that contributed to loneliness among participants and to explore more deeply, the information participants provided in the CATI surveys.

There were significant differences in health and socialisation patterns between the Chinese and Anglo-Australian seniors. (House, et al., 1988; Savikko, et al., 2005) Chinese seniors reported poorer health and socialised much more with their families while Anglo Australian seniors reported better health and socialised more with friends. Themes of self-reliance, positive attitudes and feeling connected to loved ones, supported reduced loneliness. The results of the Manningham Study identified a relationship between living alone, lower rates of socialising with friends and poorer self-assessed health, with higher loneliness. Of significance was that 20% of the sample reported high/very high loneliness and 30% reported poor/fair health, which indicates that policies and programs to alleviate loneliness among older people should be a priority.

Appendix T

Oral Presentation - Neighbourhood and Health - The Manningham Study

2010 International Federation on Ageing 10th Global Conference, Melbourne

Abstract:

As evidence emerges about the associations between health and neighbourhood for populations in general, understanding in what way similar associations apply to senior populations may uncover valuable information for health policy and health promotion.

This paper presents the findings of mixed-methods sequential explanatory design research to examine the relationship of health and loneliness in a group of seniors over 65 years of age residing in the local government area of Manningham, Victoria, Australia. Participants were drawn from Chinese and Anglo-Australian backgrounds. In general, Manningham residents enjoy good population health outcomes and have life expectancy above the Victorian average. Manningham residents are socio-economically advantaged across a range of variables with 12.4% speaking Chinese languages at home. The research reported in this paper examines the experience of this group of relatively advantaged seniors, in particular focussing on self-reported health and feelings of loneliness. It seeks to understand the role of neighbourhood in their experience

The mixed methods comprised a quantitative phase utilising computer assisted telephone interviews (CATI) to identify factors that contributed to loneliness and health. The CATI participants with high loneliness scores comprised the sample group for the qualitative phase where semi-structured face-to-face interviews and focus groups were undertaken to explore perceptions of health, loneliness, neighbourhood and socialisation patterns to understand factors that contributed to loneliness among participants and to explore more deeply the information participants provided in the CATI surveys.

The findings reveal that there are significant differences in health and socialisation patterns between the Chinese and Anglo-Australian seniors. While 15.9% of the Anglo Australians rated their health fair/poor, 43.7% of the Chinese seniors rated their health fair/poor. (House, et al., 1988; Savikko, et al., 2005) More Chinese seniors (50.6%) had low loneliness scores

than Anglo Australian seniors (36.6%). Chinese seniors socialised much more with their families while Anglo Australian seniors socialised more with friends. Themes of self-reliance, positive attitudes, neighbourhood and feeling connected to loved ones, supported reduced loneliness. The results identified a relationship between living alone, lower rates of socialising with friends and poorer self-assessed health, with higher loneliness.

While neighbourhood was perceived and identified by both groups of Manningham seniors as important to good health outcomes, this research does not support a relationship between good health and neighbourhood for Chinese seniors. The relationship between good health and neighbourhood for Anglo Australian seniors is inconclusive. Further research into the associations between health and neighbourhood for seniors is warranted.

Appendix U

Oral Presentation - What Chinese and Anglo-Australian Seniors Tell Us About Loneliness and Health

2010 Australian Association of Gerontology 43rd National Conference

This paper presents the findings of interviews and a focus group with relatively advantaged Chinese and Anglo Australian seniors and explores their experiences and perceptions of loneliness, self-reported health and social patterns. It seeks to understand the role of culture in their experience.

Participants were over 65 years of age, living in the City of Manningham, Victoria. In general, Manningham residents enjoy good population health outcomes and have life expectancy above the Victorian average. Manningham residents are socio-economically advantaged across a range of variables with 12.4% speaking Chinese languages at home.

The findings reveal major differences between Chinese and Anglo Australians perceptions about health, loneliness and family/friend connections. Health was conceptualised and experienced differently by both groups. Chinese seniors identified food, family dynamics, activity and luck as important to health. They spent less time by themselves and socialised more with their families while Anglo Australian seniors spent more time on their own and socialised more with friends. In general, Anglo Australian seniors described health in terms of functional ability.

Loneliness was described by both groups as an internal state, with self-mastery instrumental in reducing loneliness. Neighbourhood access and physical activity were also perceived as important in reducing loneliness and for good health outcomes. Themes of self-mastery, positive attitudes, maintaining activity and feeling connected to loved ones, supported reduced loneliness.

In conclusion, this research appears to have implications for policy makers and service providers. Governments need to continue planning for accessible and friendly neighbourhood places where activity is encouraged and supported. Thinking outside

typically “Anglo” frameworks is necessary when addressing health issues for Chinese seniors. Moving beyond a “one size fits all” approach to service delivery to reduce inequities and ensure all groups can benefit from the service system is recommended.

Appendix V

Oral Presentation - Happiness is Good Health

2011 International Association of Gerontology and Geriatrics 11th Asia/Oceania Regional Conference, Melbourne.

Abstract:

Aim

To understand Chinese and Anglo-Australian seniors' concepts of health, and explore how the concepts differed.

Method

Face to face interviews and a focus group were conducted with 25 Chinese seniors and Anglo-Australian seniors over 65 years of age living in the local government area of The City of Manningham. Interview and focus group transcripts were analysed, coded, sorted and organised using NVivo software.

Findings

Anglo-Australian seniors were more prone to describing good health as the absence of illness than Chinese seniors. Chinese seniors were more prone to focus on the concept of health as a positive state. However, remarkably similar descriptions of health were provided by both Chinese and Anglo-Australian seniors. The three main themes that emerged from the analysed interviews were: health as functional, health as psycho-social, and health as healthy living.

Functional health included good physical abilities and fitness, agility, independence, absence of illness, absence of pain, energy, being active. Psycho-social descriptions of health included: happiness, luck, peace of mind, feeling comfortable with yourself and with others, a positive attitude, and being in control of your health. Healthy living was described as: taking care of yourself properly (i.e., eating well, exercising, not smoking, not drinking to excess), and living in a positive environment (i.e., fresh air and water, green surroundings).

Relevance

This research has implications for policy makers and service providers. While health concepts differed, there were also many similarities. Thinking outside typical health promoting frameworks may be necessary when addressing health issues for seniors of different backgrounds. Developing, promoting and integrating a wide variety of health enhancing programs based around what is important to seniors - fitness, self-management, social enjoyment and positivity - can entice seniors to join programs that may not have appealed to them previously.