The Psychological Strengths Used by Older Australians in Maintaining Their Health and Quality of Life

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Abstract

The potential for spiralling health care costs of the ageing baby boomer cohort has provided impetus for research into all aspects of this group. Previous studies from other countries have shown a positive association between a number of psychological strengths and health; however limited Australian research exists in this area. This mixed-method two phase study investigated the psychological strengths that older adults use in maintaining their health and quality of life. This methodology was chosen to provide a deeper insight into the concepts and cross validation of results. The qualitative analysis of the interviews of 10 older adults in phase 1 found that adaptability, a positive outlook, social connectedness, and spirituality; in addition to receipt of support services were important factors to maintaining health, quality of life and the ability for those over 65 to remain independent in their own home in the community. The quantitative phase 2 of this study investigated the degree of the relationship between resilience, optimism and health and surveyed 620 older adults by mail. Data analysis using multiple regression identified resilience as a predictor of better self reported mental and physical health. Explanatory style negative events were also shown to make a significant negative contribution to the physical health of older adults, and dispositional optimism made a significant positive contribution to mental health. Previous research also suggests that a number of these strengths are able to be enhanced with minimal intervention, and considering their positive relationship with health status, the potential for flow on financial savings in the promotion of health and quality of life in older adults is immense. Relatively high health/cognitive explanatory style scores despite poor physical and mental health suggest that community-based aged-care services provide a

considerable protective influence in older adults. This research makes a valuable contribution to the existing knowledge of the psychological profile of older Australians in relation to their health, in addition to some very worthwhile contributions for the future direction of community-based aged-care services. This project also provides a sound base to guide future research.

Certification of Dissertation

I certify that the ideas, experimental work, results, analyses, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I certify that this work is original and has not been offered for the award of any other degree or diploma, or material previously published.

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Signature of Candidate (Coralie J Graham) Date

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Signature of Supervisor (Professor Don Gorman) Date

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Chapter 1. Introduction

'Old age isn't so bad when you consider the alternatives.' *Maurice Chevallier*

1.1 *Overview*

The media is full of stories related to Australia's ageing population. In particular the costs of providing care to this cohort is an area of increasing concern to the public, healthcare providers and politicians alike (ABC News, 2010; Blackwell, 2010; The Sydney Morning Herald, 2010). Gaining knowledge about our ageing population has become a priority, with many government departments encouraging researchers to conduct research in this emergent area. Historically, the majority of research in ageing has logically focused on finding solutions to existing problems; however, there is an increasing need to develop a deeper understanding of our aged citizens to enable the provision of better support services (Department of Health and Ageing, 2010c).

This study was born out of the author's interest in both community nursing care of aged citizens and the enduring strength many older adults emanate. The tenacity of older people has been noted anecdotally by many authors (Lamond, et al., 2009; Montross, et al., 2006), but no studies identified to date, have sought to empirically examine the relationship of the psychological profile of this cohort particularly in relation to their health and quality of life.

Another interesting aspect to posit in relation to the members of the current population in receipt of aged-care services is the historical and ongoing impact of World War II (WWII), either by direct involvement as a member of Australia's armed services or as domestic support in Australia. The continuing psychological impact of WWII on

this cohort of people cannot be overlooked and therefore adds another dimension of interest in examining the psychological strengths of older adults (Davies, 2001; Hunt & Robbins, 2001).

Out of necessity for understanding veterans of war and developing efficacious treatments for health problems, research has focussed on treatment of conditions such as Post Traumatic Stress Disorder (PTSD) (Davies, 2001; Fontana & Rosenheck, 1994) and long term consequences of war (Davies, 2001; Elder & Colerick Clipp, 1989; Zankin, Solomon, & Neria, 2003). Although war has a plethora of negative consequences for individuals and societies, it is encouraging that many advances in science and medicine occur as a result of the pressures of war. One such consequence following WWII was the beginning of the investigation of mental wellness as a separate research area to mental illness: humanistic psychology was born (Antonovsky, 1987; Peterson & Seligman, 1987; Seligman, 1975). This new humanistic wave of research evolved into the positive psychology movement, which includes areas such as contentment, happiness, creativity, resilience and hope (Seligman & Csikszentmihalyi, 2000).

Given the author's interest in both the health of community-dwelling older adults and in psychological strengths, it followed that a project combining both of these areas of interest would be realised. This study sought to try to understand what strengths older adults in receipt of community-based aged-care services draw on in their day-to-day lives, and what impact, if any, these strengths have on their health and quality of life.

For this reason, a two-phase study was designed to initially ask older adults what they saw as their strengths and, in conjunction with a review of the relevant literature in

the second phase of this study, to measure these identified strengths against participant's measures of health and examine the significance of these impacts. The remainder of this chapter will discuss the relevant supporting literature.

1.2 *Organisation of the Dissertation*

This short introduction is followed by a review of the literature relevant to the health and quality of life in older adults, including demographic factors and influences of psychological strengths that have been identified in the research. As this study is focused on community-dwelling older adults, common aged-care service structure and provision will also be outlined. Chapter 2 will summarise the methodological approach of both phases of the study. The method, participant inclusion criteria, materials and procedures utilised for phase 1 of this study and subsequent thematic analysis will be explained in Chapter 3. The rationale for the selection of measures to be utilised in phase 2 will also be discussed in Chapter 3. Comprehensive details of measures selected for phase 2 of the project will be covered in Chapter 4 and justification for the use of each of the will be presented, in addition to the research questions generated after the completion of phase1. Chapter 5 provides a summary of the procedures, including ethical clearance, participant inclusion criteria, recruitment and survey method used for phase 2. The statistical analysis and results of phase 2 are presented in Chapter 6. This chapter includes data screening procedures, descriptive statistics as well as the results of the multiple regression analysis. Chapter 7 provides a detailed discussion of the phase 2 results and a general discussion that incorporates the results of both phases of this study in light of previous research. Future research recommendations and the significance of this research to older Australians and the implications and utility of this study will be

also discussed in Chapter 7 which will be followed by the conclusions drawn from this study in Chapter 8.

1.3 *Ageing Australia*

As we age, quality of life, physical and psychological health becomes more important (Australian Institute of Health and Welfare, 2007b). With an increasingly ageing population larger numbers of people will depend on systems of aged care. It is predicted that by 2050 the Australian population aged over 65 years will increase from 13 % in 2010 to 26 % of our total population (Australian Bureau of Statistics, 2003; Australian Institute of Health and Welfare, 2007b). As the population of this group of people increases, their health status and quality of life will become more important to maintain and enhance than ever before, due to the associated costs of providing healthcare and support.

The life expectancy of Australians has increased from around 50 years at the turn of 20th century to 77 years (men) and 82 years (women) at the turn of the 21st century. This was due to improvements in living standards, public and environmental health improvements, and health care, in addition to medical innovations (Australian Institute of Health and Welfare, 2007b). Additionally, improvements in maternal and infant health care, development and implementation of vaccine programs, and advancements in infection management from the middle of 1900's has also contributed to longer life expectancy in most developed nations including Australia (Swerissen, 2009). In their demographic profile of older Australians, the Australian Institute of Health and Welfare (AIHW) (2007b) calculated that Australians aged 65 to 84 (known as the *young old*) comprised 11.4% of the total population, while those 85 and older (known as the *old*

old) made up 1.3%. It is predicted that not only will the percentage of older Australian's increase but that the *old old* who have the greatest need for services and support will increase in the next 30 years from 1.3 % to 2.4 %. This internal composition change of older Australians will present significant service provision challenges for policy makers. It is expected that those older Australians who make up those over 85 years of age will rise 12% to 18% of those aged 65 years and over by 2036 (Australian Institute of Health and Welfare, 2007b).

Interestingly Australian women of all cultural backgrounds tend to have a higher life expectancy than men. However life expectancy for men is increasing faster than that of women, which will result in the gap closing between life expectancies (Australian Institute of Health and Welfare, 2007b). It is important to note that in the cohort of people who participated in this study; women were more likely to experience quite different circumstances to their male counterparts. Women were more likely to be widowed, less well educated, and had a reduced employment history relative to men (Tabloski, 2010). The impacts of these demographic factors will be discussed in greater depth in this dissertation.

Despite similarities between cultural groups, in the proportion of life expectancy between men and women, cultural background has a profound impact on life expectancy (Baum, 2008). For example, the inequity of life expectancy of Australian Indigenous and non-indigenous populations within Australia currently stands at 17 years less for Australian Indigenous people. Other groups, such as migrants and refugees have additional problems such as poor early health in their country of origin due to infectious disease, poor sanitation, war, limited housing, limited literacy and many other factors

which continue to impact as they age even with improved conditions in Australia (Baum, 2008). In addition, some genetic disorders are more prevalent in some cultural groups e.g. sickle cell disease in people from Africa. Poor levels of education, mental health issues and mistrust of government agencies as a result of country or origin treatment, and limited health literacy in these groups further complicates improving health management (Baum, 2008).

It is important to note that there are a number of other factors that impact on the health of older Australians. Health behaviours developed in younger years continue to impact in later life, in addition to them having adequate income, appropriate housing and physical environment to accommodate mobility problems that typically impact as people age. Risk factors that also affect younger Australians are compounded in older age groups such as poor diet, excess alcohol consumption, smoking, lack of physical activity, and obesity which lead to cardiovascular disease, stroke and cancers (Australian Institute of Health and Welfare, 2007b).

Despite the health challenges that affect older people it is important to consider that instead of them being a passive group of people who gradually withdraw from society in their twilight years, aged cohorts are being gradually viewed more as a group with under-recognised skills and potential. Most of the research to date has focused on the decline of health and psychological functioning of the older person, with very little research into the positive aspects and strengths of this group (Ranzijn, 2002).

Provision of support services on a number of levels, to foster and maintain independence of older people in their communities will become more important in the Australian context, not only to preserve the wisdom and the direct and indirect

contributions of these individuals within the community, but also to avert potential costs associated with providing increasing levels of care (Ranzijn, Harford, & Andrews, 2002).

Typically, government expenditure has been aimed at policies related to the medical needs of older people; the social and lifestyle needs of this group have begun to be addressed only recently (Ranzijn, et al., 2002). There is a need for more research into what is needed to promote quality of life and wellbeing in older people and to establish research programs that provide a proactive approach to this issue (Browning & Kendig, 2003). In addition, the development of programs to prevent increases in the need for support services is also vital.

The need to allocate research resources to address the potential spiralling costs associated with health care of older people in society has been recognised at both international and national levels with the establishment of various research directions (Australian Institute of Health and Welfare and Office for an Ageing Australia of the Australian Government Department of Health and Ageing, 2003; United Nations Programme on Ageing and the International Association of Gerontology, 2003). *The Research Agenda on Ageing for the 21st Century* (United Nations Programme on Ageing and the International Association of Gerontology, 2003), for example promotes the implementation of the International Plan of Action on Ageing 2002. The plan of action has established identifying the determinants of healthy ageing a major priority.

Healthy ageing and quality of life were identified as critical research areas within this priority area. Additionally, the peak medical research organisation in Australia, the National Health and Medical Research Council (NHMRC) developed ‘ageing well,

ageing productively' as an area of national research priority. The terms *ageing well*, *ageing successfully* and *optimal ageing* incorporate a number of indices which cover aspects of physical, emotional, cognitive and social indicators. Baltes and Baltes (1990) assert that the term 'optimal ageing' is a better descriptor as it incorporates progressive functional loss associated with ageing in relation to what is individually possible.

Dependency on others can then be viewed as creative use of a resource rather than a burden on others and also takes into account personal and environmental resources and reserves. Baltes and Baltes (1990) go on to say that what is optimal for one individual may be very different for another on a number of measures, and that optimising different facets of their life related to current goals is an important aspect of ageing.

Promoting and maintaining the quality of life and subjective health status of this group is vital to enhance the ability of the older person to participate in and contribute to society. For the purpose of this study subjective health status will be defined as how older people perceive and self-report their own level of vitality, physical and mental functioning, and any limitations they may perceive in these areas (Bowling, 2005). Quality of life will be defined as perceptions people have about their level of personal satisfaction with standard of living, safety, subjective health status and personal relationships (Cummins, Eckersley, Pallant, Van Vugt, & Misajon, 2003).

1.4 *Health*

Edelman and Mandle (2002) assert that an older person's health is affected by the same things as their younger counterparts. Poor nutrition, inactivity, cigarette smoking and other poor health habits are known to negatively impact on subjective health status at all ages. It is important to note here that despite the health challenges of

the older person, it is not ageing itself that is responsible for health problems, rather it is the manifestation of poor lifestyle choices (Prime Minister's Science Engineering and Innovation Council (PMSEIC), 2003). The report goes on to say that it is never too late to implement positive change in lifestyle factors. Additionally, it has been shown that positive changes in health behaviours are possible even in older people and that those changes can result in improvements in health outcomes (Edelman & Mandle, 2002).

Given the considerable costs associated with caring for the health and wellbeing of older adults in institutional settings such as hospitals or aged care facilities, there is now considerable recognition for judgment to support older adults to remain in their own homes for as long as possible. The decision to provide additional services to provide this support to older adults has lead to a number of new initiatives in the provision of community-based aged-care services which are outlined below (Department of Health and Ageing, 2010a).

1.4.1 Demographic Factors that Influence Health of Older Adults

There are a number of demographic factors that influence the health and quality of life of older adults. For example: living conditions; income; social participation; community involvement; geographic isolation; cultural background; housing; level of education and many more, all of which have an impact of health (Australian Institute of Health and Welfare, 2007b; Baum, 2008). Sex, marital status and age, as factors of interest in health research in older adults have all been considered for their importance in health maintenance. For example, Schone and Weinick (1998) investigated the relationship between health behaviours, marital status and sex in older adults and concluded that being married had a positive impact and that the health behaviour benefit

for older men was greater than for older women. These findings are echoed by Frank, Wendorf, Gonzales and Ketterer (2004) who investigated the control and support interactions within marriage in long-term older married couples in relation to health. They showed that the marriage had a positive impact on promoting health, and positive health behaviours in their partner.

Many other studies have considered social isolation in the health of older adults, and have demonstrated that living alone has a negative consequence on both physical and mental health (House, 2001; Lubben & Gironda, 2003, 2004). Although Arber and Cooper (1999) did not report any statistically significant gender differences in self-reported health, there was recognition that older women were less likely to report poor health, despite more significant functional health problems than their male counterparts.

A similarly ambiguous finding emerged from a Scandinavian study which looked at gender differences in health care use (Suominen-Taipale, Martelin, Koskinen, Holmen, & Johnsen, 2006)**.** They found that although older women reported poorer health than men, they accessed health services less frequently. They also expressed similar concerns to Tablioski (2010) in relation to the poorer educational background of women. The impact of poorer education and the link to poorer health is well documented, with limited health literacy, poorer communication, reduced employment and greater poverty, particularly with increasing age, a common outcome (Blackmore & Kamp, 2009).

To better enable both policy makers and researchers to answer questions and meet the needs of older Australian's it is important that cohorts of groups of people with similar needs and challenges are well defined. The increasing number of older people in

Australia is a well recognised demographic distinction, with most government publications and research delineating older people into two distinct groups. AIHW (2007b) recognised the distinction of those in the 65–84 year age group as having very different challenges to those who are aged 85 and older. Nay and O'Donnell (2008) also noted that with the health of Australians generally improving, the parameters used to define older people may need to be moved to those aged over 70.

For the purposes of this thesis, the older person will be defined as being over 65 years of age, with a delineation of 65 to 84 years being the *young old* and those aged over 85 as the *old old*. The general term, older adults will be used to describe both groups in combination. The increasing service needs of older adults in the Australian population makes the importance of any factors shown to have an influence either directly or indirectly on health are of interest to policy makers and service providers. Therefore the age, sex and marital status of older adults as factors of interest deserve greater research attention in their contribution to the health of older adults, and were considered in this project.

1.5 *Community Services*

The Australian government has a made a commitment to provide services to older Australians in recognition of their contribution to their community (Department of Health and Ageing, 2008). Providing supportive community services to older Australians in their own homes also extends the duration that they are able to live in their own community before they may require more expensive higher levels of residential aged care services (Department of Health and Ageing, 2008). This report goes on to note that encouraging independent and active ageing should be a shared

responsibility across government, business, industry and the community. In meeting this increasing need, a raft of caring options is available to older adults. Nay and Garratt (2009) comment that despite steady increases in community service funding, service providers report that demand for services far exceeds their capacity, placing significant demands on already overburdened informal caring networks that the majority of community-dwelling older adults need.

Services range from high care provision in aged-care residential facilities to the provision of low care support and services in the older person's home. As this study focuses on older people living in their own homes with low support needs, high care services will not be discussed here. Eligibility for community-based aged-care services is determined by Aged Care Assessment Team (ACAT) assessment (Department of Health and Ageing, 2010b). A Community Aged Care Package (CACP) provides individually tailored coordinated packages that provide personal care, social support, transport to appointments, home help, meal preparation and gardening services. Eligible older adults are then required to make a means-tested co-payment to their service provider for up to six hours support per week. Home and Community Care (HACC) (Queensland Goverment, 2010) services are the largest community care program provider for older people in Queensland. It provides similar basic services to the CACP program, but does not require ACAT assessment.

1.5.1 Home And Community Care (HACC)

The majority of government community-based support for older people is provided by the HACC Program which is a joint Commonwealth, State and Territory

initiative. It provides basic maintenance and support services to help frail older people and younger people with disabilities to continue living in their community. HACC provides a range of community services which includes nursing care; domestic assistance; allied health care; meals and other food services; personal care; respite care; home modification and maintenance; transport; counselling, support, information and advocacy; and assessment with the aim of reducing the need for, or time before requiring residential care. The aim of these services is to deliver quality, affordable and accessible services within the community to support people to remain independent in their own home. The Department of Veterans' Affairs offers similar in-home community services (Veterans' Home Care)(Department of Veteran's Affairs, 2011) to veterans, which are run through the same community service organisations as HACC funded programs. For the purpose of this dissertation, reference to HACC services will also include Veterans Home Care services.

According to the Department of Health and Ageing (DOHA) (2005) there has been a 21.1 % increase in provision of HACC services and community support care packages in the aged sector services during the past five years. While governments support maintaining older people at home in their community, thus prolonging or avoiding the need for expensive institutional care, accountability for public expenditure continues to be a priority (Brooke & Kendig, 2007). Kendig and Duckett (2001) note that there is a strong preference for older people to remain in their own home and avoid residential care, which has seen a shift from institutional formalised care, to informal caring arrangements in the older person's home. Therefore, in-home community-based aged-care services that support informal carers have become a vital component of

extending the capacity and duration of care providers. In most cases, the quality of these services has a direct impact on the health and quality of life of older adults while maintaining their connection to their community which is of enormous importance to this population(Kendig & Duckett, 2001). The importance that older adults place on social connections is discussed in more detail later in this section.

There is increasing criticism for what many researchers (Baker, 2006; Baker, Gottschalk, Eng, Weber, & Tinetti, 2001; Wells, Foreman, & Ryburn, 2009) have described as an out-of-date or dependency model of many community-based aged-care services. They suggest that the focus on task-orientation, promotion of the 'sick-role' and lack of emphasis on education and the promotion of healthy lifestyle, create scenarios for dependency, although they note that this may be a factor of limited resources and current funding models (Wells, et al., 2009). Therefore, these factors need to be considered in the redesign of existing programs to ensure the programs promote the best outcome for their recipients and their quality of life.

1.6 *Quality of Life*

Hughes (1993) (as cited in Hayes (2002)) notes that quality of life is made up of, physical environmental, social environmental, socio-economic, personal autonomy, subjective satisfaction, individual and personality factors. In addition to evaluating subjective health status, a number of researchers have identified the need to look at general quality of life issues in older people (Deiner & Fujita, 1997). Although quality of life does include satisfaction with health, there are other aspects of quality of life such as satisfaction with standard of living, health, achievements, personal relationships, safety, community, and future security. Provision of health services, level of perceived

safety and other culturally bound expectancies have also been shown to affect a person's perception of their quality of life (Bowling, 2005).

1.6.1 Health-Related Quality of Life (HQoL)

The need for researchers to be able to evaluate service provision and health interventions and translate them into better health outcomes for older people has prompted a number of invasive and non-invasive methods to measure health. Invasive methods, such as studies using cell markers of immunity or other blood measures, require invasive techniques to obtain one or a number of blood samples. Invasive methods are not normally a viable means of gaining information about health in the social science fields, due primarily to the high cost involved (Kamen-Siegel, Rodin, Seligman, & Dwyer, 1991).

A number of standardised self-report measures of subjective health status have been developed as non-invasive means of gaining information about a person's health status. In these self-report instruments, individuals are asked to rate their own health and the impact of their health on their lives. Subjective health status, which is influenced by perceptions of individual health, although one step removed from more invasive techniques, provides a reliable measure of health status. Epstein (1990) asserts that self-reported health assessment is as reliable as that gained from more invasive methods such as blood tests.

Measuring health-related quality of life (HQoL) using self-reported health assessment tools in general has presented challenges for health care providers. This is compounded by the factors influencing the health of older adults such as cognitive impairment or frailty associated with ageing (Courtney, Boldy, & Moyle, 2009).

Differentiating health-related quality of life as a construct from quality of life as a broader term has created a great deal of debate in this research area particularly in relation to health and quality of life assessment in older adults.

HQoL is best defined as having a focus on health and physical assessment (Courtney, et al., 2009) although authors such as (Wilhelmson, Andersson, Waern, & Alleback, 2005) recommend caution in the overemphasis of these areas. Courtney, Boldy and Moyle (2009) go on to say that because older people tend to subjectively rate their quality of life more highly than younger people, the assumption that advancing age in not necessarily synonymously associated with declining overall quality of life.
In the following section, the positive psychological constructs relevant to this project and their relationship to subjective health status, quality of life, and each other will be discussed in greater detail.

1.7 *Positive Psychology Movement*

Psychology as a science has tended historically to focus primarily on illness and weakness. In the wake of World War II, humanistic psychologists began to consider the study of human strengths and how these characteristics acted as buffers to mental and physical health. These considerations became the focus of the positive psychology movement. The message of the positive psychology movement is that humans are not passive vessels, but are decision makers whose strengths can be amplified and used to enhance health (Seligman & Csikszentmihalyi, 2000). Ranzijn et al. (2002) assert that the promotion of research in this emerging science of positive psychology in older people is important to reduce negative stereotypes of the older person, and instead broadcast the strengths and value of the older individual to their community.

'Explanatory style' is the term used to describe individual perceptions about specific current events based on past experience (Petersen, Maier, & Seligman, 1995; Petersen, et al., 1982), while 'dispositional optimism' refers to generalised positive expectancies about the future (Scheier & Carver, 1985; Scheier, Carver, & Bridges, 1994). 'Hope' is defined as positive aspirations about a goal and the ability to find a way to achieve that goal (Seligman, 1991). 'Resilience' in research is defined as positive adaptation to adversity (Connor & Davidson, 2003), while the term spirituality refers to an individual's personal relationship with their God, in contrast to religion which also includes organised religious practice (Fontana, 2003).

Many constructs associated with the positive psychology movement have been shown to protect against health decline and enhance perceived quality of life (Connor & Davidson, 2003; Isaacowitz, 2005). Additionally, the viability of programs to improve health outcomes through interventions designed to enhance positive psychological constructs has been demonstrated (Connor & Davidson, 2003; Klausner, et al., 1998; Luthar & Cicchetti, 2000; Ranzijn, 2002; Seligman, 1991). If a relationship between the positive psychological constructs can be identified in this study, then this research may be able to assist older people by targeting interventions designed to improve subjective health status and quality of life. There has been little multivariate research conducted on how these constructs relate to each other and the perceptions of health and quality of life in older community dwellers.

The field of positive psychology is the science of positive subjective experience, positive individual traits and positive institutions or civic virtues (Seligman & Csikszentmihalyi, 2000). On an individual level, positive psychology focuses on the

personal and subjective experiences of people, with particular emphasis on wellbeing, contentment and satisfaction with their past, hope and optimism for the future, and joy, comfort, ecstasy and happiness in the present. Positive individual traits encompass having the capacity for love, courage, perseverance, future mindedness, spirituality, talent and wisdom. At a group level, civic virtues comprise the way in which individuals contribute to society with positivity, such as altruism, tolerance, responsibility, nurturance and work ethic (Seligman & Csikszentmihalyi, 2000).

The most relevant individual factors and traits that have been shown in previous research to be relevant to the older person's ability to buffer against declines in subjective health status and quality of life are those of explanatory style, dispositional optimism, resilience and spirituality (Connor, Davidson, & Lee, 2003; Isaacowitz & Seligman, 2001; Kass, Friedman, Leserman, Zuttermeister, & Benson, 1991; Koenig, 1998b; Scheier & Carver, 1985, 1992; Scheier, et al., 1989; Seligman, 2002). The following section provides more detail about these positive psychological constructs.

1.7.1 Optimism

Optimism as a general term is defined as the way in which people are able to maintain hope and a belief that things will turn out well despite the challenges that life offers. In contrast pessimists tend to hold the view that life's challenges will result in further negative outcomes, and often expect the worst outcome. It is not surprising that pessimists tend to experience more frequent and severe depressive episodes than their optimistic counterparts. Optimism, although generally described as a positive outlook, has two distinct research streams that result from the way the two dominant researchers in this domain measure the concept of optimism and classify various aspects associated

with construct (Isaacowitz, 2005; Isaacowitz & Seligman, 2001, 2002; Petersen, 1991, 1994, 2000; Petersen & Bossio, 1991; Petersen & Seligman, 1987; Scheier & Carver, 1985, 1987, 1992; Scheier, et al., 1994; Scheier, et al., 1989; Schueller & Seligman, 2008; Seligman, 1991, 2002; Seligman & Csikszentmihalyi, 2000; Seligman & Isaacowitz, 2000).

Seligman (1975) asserts that his categorisation of optimism, which he calls explanatory style, explains the way in which humans explain past or current events, instead of how they anticipate their future. In contrast, Scheier and Carver (1985) affirm that their definition of optimism is about the way in which people expect to be successful and that good things will happen in the future. They note that this concept could also be called 'expectational optimism' although most of the past literature has referred to this concept as dispositional optimism which is the term that will be used in this thesis. The following section will provide greater detail of the research around these concepts, particularly in relation to health.

1.7.1.1 Explanatory Style

Peterson (1994) asserts that learned helplessness, a phenomena in animal research, is also the basis for some behaviours in humans who have been exposed to uncontrollable events in their past. However, human beings differ from animals, in that humans can develop learned helplessness through vicarious experience, for example, by watching televised news stories. In humans, learned helplessness appears to mimic the symptoms of reactive depression and some humans appear to be more immune to learned helplessness than others (Petersen, et al., 1995; Seligman, 1975, 1991).

A variety of explanations has been offered as to why some people are less likely to develop learned helplessness. The most plausible and empirically tested of these explanations is based upon explanatory style. 'Explanatory style' is the term used to describe individual perceptions based on events from past experience, and is about a specific event (Petersen, et al., 1995; Petersen, et al., 1982). It is posited that when people are confronted by an event they will ask themselves 'why?' Within this theory, the focus is on the way people view negative life events and how they distance themselves from their perception of these events. The answer they provide determines their reaction to the event according to three dimensions (Seligman & Isaacowitz, 2000). People who have an optimistic outlook will see the event as temporary, specific to the event, and view failure as the result of an external event. In contrast, people with a pessimistic outlook are likely to view an event as having permanence, affecting everything in their life, and failure is likely to be perceived as due to something about themselves (Seligman & Isaacowitz, 2000).

Pessimistic explanatory style has been linked to poorer immune system function (Kamen-Siegel, et al., 1991).It has been associated with higher mortality rates in longitudinal studies (Petersen, et al., 1995), and increased risk of disease and death (Maruta, Colligan, Malinchoc, & Offord, 2000). A review of several studies examining the relationship between explanatory style and illness by Petersen and Seligman (1987) found that people with a pessimistic explanatory style are at greater risk of disease and pre-mature death.

A pessimistic explanatory style has also been associated with intermediate levels of depression, although it was also revealed that extreme optimists who had experienced

negative events also reported high levels of depression (Isaacowitz, 2005). This finding suggests that extremely optimistic older people may have a difficult time adjusting to age-related changes. Furthermore, Isaacowitz (2005) examined the relationship between explanatory style and quality of life in his cross-sectional study of 280 young middle-aged and older adults. From responses to paper-and-pencil measures in both age groups, he found that a more optimistic explanatory style was predictive of positive quality of life in adults of all ages.

Additionally, a number of activities have been demonstrated to change pessimistic explanatory style (Seligman, 1991). Ranzijn (2002) suggests that formal interventions or informal strategies may strengthen adoption of an optimistic explanatory style in an older Australian population and protect against adverse affects caused by pessimism and hopelessness.

Lachman (1990) examined explanatory style and the relationship of explanatory style to their subjective health status in groups of younger and older adults using a measure of attributional style, the predecessor of explanatory style. She observed that older adults who reported poorer health also attributed negative outcomes to things about themselves. Additionally, Lachman observes that this group of people tend to assess outcomes to global as opposed to specific causes, a pattern typical of a pessimistic explanatory style.

Other than the Lachman (1990) study, which was conducted in the US, there have been no other studies examining the relationship between explanatory style and subjective health status. Similarly, there have been no studies examining the relationship

between explanatory style and quality of life in older adults, either in Australia or other countries.

1.7.1.2 Dispositional Optimism

Dispositional optimism refers to generalised positive expectancies people have about their goals and their ability to find ways to achieve them (Scheier & Carver, 1985; Scheier, et al., 1994). Scheier and Carver (1992) suggest that the difference between dispositional optimists and dispositional pessimists is that the former cope better with stress, confront their problems and deal with them head-on, and are active problem solvers, whereas pessimists tend to avoid problems and give up more quickly.

A number of studies examining the relationship between explanatory style, dispositional optimism and subjective health status have concluded that explanatory style and dispositional optimism are related, but differ in significant ways that produce different outcomes when used with the same population (Isaacowitz, 2005; Isaacowitz & Seligman, 2002; Tomakowsky, Lumley, Markowitz, & Frank, 2001). Snyder (2000) observes that while explanatory style is related to positive outcome expectancy for a specific situation, dispositional optimism refers to more generalised outcomes (Scheier & Carver, 1985; Scheier, et al., 1994). In other words, explanatory style tends to be consistent within domain (e.g., academic versus interpersonal) but has the potential to vary across domains, while dispositional optimism refers to general expectancies that a person carries across all domains (Isaacowitz, 2005).

Research examining dispositional optimism has observed that optimistic middle-aged men recover faster from coronary bypass surgery (Scheier, et al., 1989) and middle-aged older women experience less anxiety and perceived stress (Robinson-

Whelan, Kim, MacCallum, & Kiecolt-Glaser, 1997). Additionally, Bromberger (1996) observed that pessimistic women, when faced with ongoing stress, were more likely to be experiencing depression at a three-year follow-up.

A number of studies have examined the relationship between psychological and physical health and dispositional optimism. A longitudinal study of middle-aged men by Scheier et al. (1989) found that those identified as optimists reported a higher quality of life at six-month follow-up than did pessimists. Similarly, optimists have been observed to exhibit more adaptive coping skills and lower levels of self-reported psychological distress than pessimists at three, six and twelve months after surgery in a sample of women diagnosed with Stage I or II breast cancer (Carver, et al., 1993).

Similarly, Isaacowitz (2005) examined the relationship between dispositional optimism and quality of life in 280 young middle-aged and older adults. He found that high levels of dispositional optimism were predictive of positive quality of life in adults of all ages. Other than this US study, there have been no others examining the relationship between dispositional optimism and quality of life. Similarly, there have been no studies examining the relationship between dispositional optimism and subjective health status in older persons, either in Australia or other countries.

1.7.1.3 Resilience

Another positive psychological construct associated with the ability to cope in stressful situations is that of psychological resilience. Connor and Davidson (2003) consider resilience to embody personal qualities that enable individuals to thrive despite adversity. Kaplan (2002) describes resilience as the ability to view life's events as a challenge. He further suggests that resilient individuals are more likely to use adaptive

coping strategies and thus more likely to engage in health-promoting behaviours (Kaplan, 2002).

There has been considerable discussion between authors of research in the area of resilience (Almedom & Glandon, 2007; Bonanno, 2004; Connor & Davidson, 2003; Connor, et al., 2003; Elder & Colerick Clipp, 1989; Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003; Grotberg, 2003; Luthar & Cicchetti, 2000; Richardson, 2002; Ryff, Singer, Love, & Essex, 1998; Tusaie & Dyer, 2004), with much discussion focusing on definitions and what resilience as a construct encompasses. Much research has centred around the negative outcomes of exposure to trauma and adversive events and treatment options for those people who do not cope so well after exposure to trauma (Bonanno, 2004; Davies, 2001; Hunt & Robbins, 2001). A number of researchers have posited how the concept of resilience should be defined to include pathways to resilience, and end pathological state results of traumatic events (Bonanno, 2004; Davies, 2001; Hunt & Robbins, 2001). The main differences between definitions of resilience are the nature of individual outcomes in response to stress, and the characteristics of the individual that interact with stress to produce these outcomes. Despite differences in definitions of resilience, Luthar and Cushing (1999) assert that the underlying constructs in all definitions are that of risk (or adversity associated with adjustment problems) and the likelihood of adapting positively to that adversity.

Kumpher (1999) asserts that resilience is the interaction between the way in which an individual modifies or perceives their environment. Individual internal resilience factors such as cognitive, behavioural, emotional, physical and spiritual

elements impact on this perception and affect the adaptation process. Figure 1 is a simplified diagrammatic illustration of this environment/individual interaction.

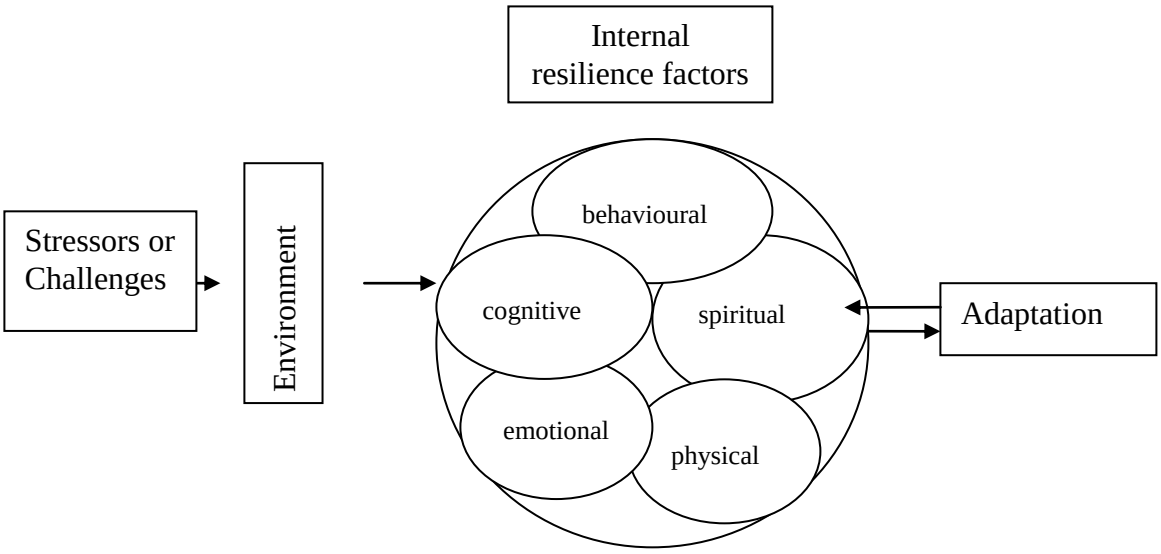

Figure 1. Diagrammatic representation of internal resilience factors and environment. Adapted from Kaplan (2002) Resilience and development: Positive life adaptations, (1999) edited by M. D. Glantz and J. J. Johnson

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In their systematic review of the research on resilience, Almedom and Glandon (2007) note that resilience is more than an absence of pathological states such as post traumatic stress disorder (PTSD), and that this multidimensional construct needs both qualitative and quantitative research design in studies examining the concept. In populations such as the group under scrutiny in this study, i.e. older adults, it is important to consider the long-term impact of World War II on participants, all of whom have been affected to varying degrees from the events in that time, and the long-term behavioural consequences particularly in relation to adaptive behaviours (Davies, 2001).

Richardson (2002) suggests that the outcome of adversive events is an interaction between these events and internal protective factors. It is the strength of the protective factors that determines a salutogenic versus a pathogenic one. He further asserts that these protective factors are comprised of an adapted state of mind, body and spirit which he calls biopsychospiritual homeostasis. He further suggests that this state of homeostasis is an adaptive state that can be achieved regardless of the circumstances of the individual which assists them in reaching the stage of resilient reintegration. Richardson (2002) goes on to say that it is possible to increase adaptive and protective status in order to give people increased control and reduce the need for medication or external supports.

The flow-on effect of these adaptive behaviours on health is examined in a study in hardiness and health by Maddi (2002), who concluded that hardiness is a protective factor in guarding against physical and mental health conditions. Maddi (2002) asserts that a hardy attitude is comprised of interacting with the world and motivation in difficult circumstances, similar to adaptability as described by Richardson (2002).The significant impact of social support is considered by a number of authors as an important part of the concept of resilience (Friborg, et al., 2003; Werner & Smith, 2001). They suggest that the support of peers and significant others is more important than professional help in healthy recovery from adversive events. Friborg et al. (2003) go on to say that an individual's positive level of social functioning prior to them experiencing an adversive event is predictive of a positive clinical outcome, i.e. a salutogenic versus pathogenic response.

1.8 *Social Network*

Several authors looked at the importance of social networks in relation to the health of older adults (Lubben, 1988). Lubben and Gironda (2004) note that supportive social ties are associated with both better mental and physical health in older populations. They further assert that loneliness, social isolation and problematic social relationships are associated with slower recovery from illness, an increased risk of disabling conditions and premature death. They make a distinction between what defines a social network and social support. Lubben and Gironda (2003) note that social networks comprise the number and frequency of social relationships with others whereas social supports encompass the nature and the quality of a subset of the social network. While there is a clear relationship between social networks and social support, loneliness is a clearly distinct construct which is described as a subjective experience usually characterised by less social support than is desired (Lubben & Gironda, 2004).

Supportive social networks from spouses, children, extended family, neighbours and friends provide a range of emotional supports including love, empathy, caring, affection, understanding and sympathy, in contrast to physically tangible tasks such as financial support, assistance with daily household tasks and other daily living tasks (Lubben & Gironda, 2004).

In the development of a scale to measure social network in older populations, Lubben (1988) considered the indirect and direct health implications in older adults of those social networks. He suggests that people with a limited social network were at greater risk of stress and stress-related illness, in addition to poorer adherence to positive health behaviours and less timely health-seeking behaviours. Social network has also

been posited by Lubben (1988) as a means of providing older adults with information and health advice, which often results in them being more compliant with medical treatments and having more positive health behaviours. Social supports have also been identified as a source of encouragement for older adults in seeking medical assistance when required, or other health alternatives for health problems.

In their development of a measure to capture and measure social networks in older populations Lubben and Gironda (2003) also considered the impacts of negative social contacts such as challenging relationships with family members, neighbours and friends, including those supports providing over eager unneeded support which has been shown to be detrimental. Social networks by way of attendance at institutions such as religious organisations have been shown to have a positive impact on functional health in older adults (Benjamins, 2004). The author of a study examining this posits that although the study did not provide conclusive support for social support by way of religious affiliation and attendance, it is an important concept requiring additional research (Benjamins, 2004).

1.9 *Spirituality*

Spirituality is defined as holding a belief in a supernatural reality, the motivation for the need to attain higher consciousness, belief in some form of afterlife, and the desire to achieve inner harmony without adherence to organized or specific doctrines (Fontana, 2003). By contrast, religion has a belief in a spiritual dimension, observes specific spiritual rituals and practices, and closely follows a code of behaviour based on spiritual doctrines.

Some studies have considered the impact of spirituality on both subjective health status and quality of life, and researchers are increasingly considering spirituality as a variable of interest, particularly in older adults (Weaver, Flannelly, Stock, Krause, & Flannelly, 2005). In their review of religion and health research, Koenig, McCollough and Larsen (2001) reported a positive relationship between religious practice and belief and positive health behaviours. Duke University has a centre dedicated to the study of spirituality, theology and health, and has released a large number of peer-reviewed journal articles on this topic (Duke University, 2007).

While religion has been shown to have an association with physical and mental health status and quality of life (Koenig, 1998a, 1998b; Koenig, et al., 1997; Koenig, Pargament, & Neilsen, 1998), far less research has been conducted on the relationship between spirituality and subjective health status and quality of life. Nevertheless, there are some studies where spirituality has been noted to have a positive relationship to both quality of life and subjective health status in a sample of adults (Kass, et al., 1991; McBride, Arthur, Brooks, & Pilkington, 1998). Spirituality has also been associated with a lower relative risk of disease and enhanced wellbeing (Levin & Chatters, 1998) and enhanced wellbeing in people suffering from diabetes mellitus (Landis, 1996).

Bartlett, Peidmont, Bilderback, Matsumoto, and Bathon (2003) noted that a sample of middle-aged adults with rheumatoid arthritis who were high in spirituality reported better subjective health than those low in spirituality. Additionally, Brady et al.(1999) found that spirituality was an important contributor to quality of life in their study of oncology patients. Apart from these US studies, none have examined the

relationship between spirituality and subjective health status, or between spirituality and quality of life in older people in Australia or any other country.

1.10 *Rationale for the Study*

The literature provides us with some clues as to positive psychological constructs that influence subjective health status and quality of life in older people, such as optimism, resilience, spirituality and the importance of social supports. This study provides a starting point for research of the relationship between these positive psychological attributes and health and quality of life in older people. Additionally, as this area of investigation is relatively new, there is a possibility that other positive qualities and characteristics of the older individual may influence subjective health status and quality of life. In light of this, a two-stage research process was proposed. In the first stage, an exploratory qualitative study was conducted to examine the older persons' perceptions of psychological strengths that contributed to their perceptions of health and quality of life. The results of this stage, as well as evidence in the literature, will then be used to inform the selection of variables to be used in the quantitative correlational study designed to determine the nature and strength of the associations between positive psychological variables and subjective health status and quality of life in older community-dwelling adults. There have been a number of identified differences in the general health and wellbeing of older adults according to age, sex, marital status, culture, economic status, and geographic isolation in addition to other factors (Australian Institute of Health and Welfare, 2007b). Therefore, as being identified as important factors to investigate, the influence of age, sex and marital status will be

considered for any possible moderating relationship between health and any of the predictor variables and health which are identified as being statistically significant.

Older people, for the purpose of both phases of this study, were defined as those aged 65 and over. Older adults with a diagnosis of dementia, or with high-care needs, were excluded from the study to avoid potential confounds related to the need for greater levels of care. Thus, participants were people only requiring minimal services to be maintained either in their own home or in hostel-type accommodation, though the potential for requiring increased care was high.

Phase 1 of the project used a qualitative analysis of ten semi-structured interviews to provide information about what strengths older people used to maintain health and quality of life. Based on this information, phase 2 will utilise a quantitative methodology by means of surveys.

1.11 *Objectives of the Study*

The aim of the project was to obtain detailed information about what older adults perceived as the strengths that they used to maintain their health and quality of life. The literature revealed the positive psychological variables of explanatory style; dispositional optimism, resilience, and spirituality are important variables in the health of older adults. Based on the literature review, the study was designed to gain both a deep knowledge about the psychological strengths that older adults possess, and also to empirically test the strength of any relationship between these psychological strengths and their health and quality of life.

1.12 *Summary and Direction for the Study*

The literature revealed paucity of knowledge in the area of the psychological profile of older adults, particularly in relation to the psychological strengths that these people exhibit, and also in relation to their health and quality of life. The design of this study therefore needed to facilitate the gaining of a deeper understanding of what the most common psychological strengths were by talking to people in this age group and asking them what they felt their strengths were and how the identified strengths were related to their health and quality of life. Grbich (1999) asserts that 'truth' is gained from understanding the actions, beliefs and values from the participants' standpoint. To this end, this qualitative study was designed to elicit the participants 'truth' from their interviews, which then directed which surveys were chosen in the quantitative second phase of the study. Phase 1 of the study was therefore designed to achieve this goal and also to provide direction for the second phase of the project, which sought to provide empirical support for the identified strengths from phase 1.

The design of phase 2 of the study tested the strength of the relationships between the psychological strengths and the health and quality of life of the participants by using pre-existing and well validated questionnaires. Exploratory analyses in relation to the demographic variable groupings and multiple regression analyses would provide empirical evidence of the relationships between the variables under consideration, thus providing strength to the phase 1 qualitative analysis data. The following chapter provides a detailed description of the project design with the aim of providing information that will enhance the likelihood of providing viable interventions to enhance health and perceived quality of life in community living older people.

Chapter 2: Methodology and Project Design

'Old age is fifteen years older than I am.' *Oliver Wendell Holmes*

2.1 *Introduction*

The complexity of factors that impact on the health and quality of life of older adults necessitates a comprehensive understanding. There are a number of research methodologies which could have been utilised to undertake this project; however, the methodology chosen for this project was chosen because of the richness of the information that would ultimately be gained from a qualitative analysis with the scientific rigor of a quantitative study. Bowling (2002) asserts that it is important in research design to minimise sources of bias that interfere with the reliability and validity of results of any study. She further asserts that this is difficult to achieve, with some scientific paradigms leading the research direction by their very philosophical approach, particularly in the domain of social science.

Tashakkori and Teddlie (2009) note that regardless of the discipline under scrutiny, and different methodological approaches that are utilised, that ultimately the research methods are chosen to enable the researcher to best answer their research question. Considerable discussion has taken place over the last few years about definitions and terminology in research which combines either the use of different research methods to answer the same research question or the collection of different types of data in a single study (Denzin, 1989; Sandelowski, 2003; Tashakkori & Teddlie, 2009). Sandelowski (2003) notes that terms such as 'triangulation' and 'mixed-method' which are often used interchangeably, add to the confusion about using more

than one approach to either data collection or research method in a single study. Much debate amongst scholars in this area is around the emphasis on the advantages of particular paradigms by advocates of a particular research method, contrasted by other researchers who seek to combine research methods and claim advantages to research of these combinations (Sandelowski, 2003).She further advises caution in blending too much between qualitative and quantitative data to avoid the loss of the essential strengths of each method.

Tashakkori and Teddlie (2009) note that despite a number of different combinations of research methods, that 'mixed- method' is the most commonly accepted term to describe the use of integrating qualitative and quantitative approaches. They also make an important distinction of the term 'mixed-method' which should not be confused with collection and analysis of two types of data in a single project (Sandelowski, 2003; Tashakkori & Teddlie, 2009).

2.2 *Research Design*

Despite the debate around advantages or disadvantages of any particular method over any other, a mixed-method was chosen as the best option to answer the research questions for this study. Tashakkori and Teddlie (2009) observe that mixed-method should be defined as research where the data is collected and analysed using independent methods (either qualitative or quantitative) and integrates the findings and draws inferences using both methods in a single study. They also note that the inferences made at the conclusion of a study are only good if the inferences made address the rationale for mixing methods in answering the research question (Tashakkori & Teddlie, 2009).

The original term ‘triangulation’ was first used by Denzin (1978) to describe a combination of qualitative and quantitative approaches in a single study of the same topic and contended that the use of triangulation in data collection minimises personal bias and deficiencies that exist with each data collection method. Regardless of the terminology used, research which utilises both qualitative and quantitative methods are recognised as a valuable in answering complex research questions (Tashakkori & Teddlie, 2009). The term “mixed-method” will be used in this dissertation.

The majority of research in health is driven by the need to find or test solutions to a particular problem or a pathogenic approach. Therefore, out of the need to advance medicine and improve survival rates and quality of life of those with pathogenic conditions, the majority of research in health and medicine has focused on looking at genetic conditions, illness or injury and identifying underlying pathology or other causes, and how best to treat or manage them. By contrast, the salutogenic paradigm first discussed by Antonovsky (1987) considered the causes of health, maintenance of health and promotion of health. Antonovsky asserts that humans are complex systems which function within bio-psycho-social environments, and that a combination of environmental and personal factors accumulates to create a sense of coherence that determines the outcome of life events.

To attempt to capture such complex interactions in an older population requires a thorough examination of the many factors that contribute to their health. For this reason the collection of a number of sources of data is important to enable the author to try to capture the complexity of interactions in an older population. It is also important to

strengthen the validity of those identified factors with empirical evidence, and therefore a mixed-method research design was chosen.

2.3 *Mixed-Method Design*

Tashakkori and Teddlie (2003) assert that mixed method designs which incorporate qualitative and quantitative methods are superior to single approach methods in that studies that combine both approaches can answer research questions that single approaches are unable to do and provide stronger inferences in research. They also acknowledge that there is the opportunity for the presentation of a more comprehensive diversity of different perspectives.

Although a number of categories have been posited according to purpose or other criteria, Tashakkori and Teddlie (2009) have categorised mixed-method designs into five families based on three key dimensions. These dimensions encompass:

- the number of strands or phases in the research design,
- the type of implementation process and,
- the stage of integration.

Tashakkori and Teddlie (2009) state that the number of strands of phases in the research design encompasses the stages of conceptualisation, experiential (methodological/analytical) and inference. For example, a single phase study or monostrand design would include all stages from conceptualisation to inference, in contrast to a multistrand design which includes each strand undergoing conceptualisation to inference. The implementation process refers to the timing of various phases in relation to each other and include parallel, sequential and conversion. Parallel study designs are comprised of various study strands occurring more or less in

the same time frame, while sequential study designs occur in a more time sequenced manner. By contrast, conversion study designs includes the transformation of one type of data into another for analysis (Tashakkori & Teddlie, 2009). The third dimension of Tashakkori and Teddlie's (2009) typology refers to the stage of integration of the qualitative and quantiative design approaches.

Denzin and Lincoln (2000) suggest that where there are many data sources such as participants who provide rich data in a qualitative study, and that the data from these participants provides the opportunity for a researcher to examine non linear views of the same topic. It is this simultaneous expression of competing or alternative views of the same reality, which adds considerable depth of understanding. They further assert that the complexity and dynamic nature of the lives of humans is better understood by a multi-method approach.

Sandelowski (2000) adds to this discussion by asserting that qualitative and quantitative approaches, while they differ in data collection methods, are not mutually exclusive and can add to the scope and analytical power to the study. Bowling (2002) further notes that qualitative data can enhance quantitative data in social research situations. In this study, using the phase 1 qualitative data in combination with previous published literature to guide the choice of measures for phase 2 provided further validation than the literature alone.

Browning and Kendig (2003) suggest that while qualitative studies provide an understanding about the diversity of individual stories and the needs and interests of older people, quantitative research provides nomothetic data (data derived from large groups) that may help guide decisions made by policy makers in a direction that would

be of greatest benefit to older adults. Sandelowski (2000) suggests that a mixed-method study design that combines qualitative and quantitative sampling, adds scope to research. This opinion is also echoed by Tashakkori and Teddlie (2009) who note that data quality in a mixed-method study is maintained provided the quality of analysis of both the qualitative and quantitative data in maintained in each of their analyses.

2.4 *Conclusion*

The use of a sequential mixed-method design utilises both quantitative and qualitative methodologies to make best use of the strengths of both methods, while providing some depth of understanding of the complex psychological profile of the older adult and empirical support. The semi-structured interviews in phase 1 attempted to uncover some of the psychological strengths that older adults use in daily life to maintain their health and quality of life, and will provide some rich data which, in combination with knowledge gained from previous publications, guiding the choice of measures used in phase 2. The richness of experience and personal perspectives of older adults was used to gain a more complete understanding of the complexities of the psychological strengths and their perceived role in the health and quality of life of older Australians. The following chapter expands on the methods undertaken to accomplish phase 1 of this two-phase study.

Chapter 3: Phase 1

'Age is a very high price to pay for maturity'. *Tom Stoppard*

3.3 *Introduction*

Phase 1 of this project used a qualitative analysis of ten semi-structured interviews to provide information about what strengths older people use to maintain health and quality of life and to inform the choice of surveys in the quantitative study in phase 2. Denzin (1978) suggests that combining methods can help overcome the deficiencies from using a single method. The use of a small number of individual interviews to gather in-depth information is helpful in gaining insight into participants' beliefs and perceptions, which can then be used to assist questionnaire choice for quantitative profile generations of a much larger population. Denzin and Lincoln (2000) note that interviewing is one of the most powerful methods of gaining an understanding of the experiences of others, and certainly this is why semi structured interviews were chosen to gain understanding in phase 1 of this study. A quantitative methodology by means of surveys for phase 2 was chosen based on the analysis of phase 1 data and support from the relevant literature.

Despite concerns regarding interviewer bias and the expressive constraints of a highly structured interview, the semi-structured interviews that were used in phase 1 of this study allowed more latitude for participants to express their points of view and thus provide clarity on each topic area. Bowling (2002) asserts that the use of face-to-face interviews allows for clarification of ambiguities. She notes that despite the high time and financial cost associated with face-to-face structured and semi-structured interviews,

the data gleaned can be highly accurate. To minimise possible author bias during thematic analysis , the manual thematic analysis, was validated using Leximancer, which is described as a fully-automated unbiased concept-mapping computer program (Leximancer, 2010).

3.4 *Procedure*

Before this study began, ethical approval was obtained from the University of Southern Queensland Human Research Ethics Committee (Approval Reference Number H05STU497) (Appendix A). Participants who volunteered for this phase of the study contacted the author initially by phone and agreed on a suitable time for an interview in their own home. Before the interview, the project was explained to the participant in detail, in plain language terms. They were also provided with another copy of the letter of introduction from the University of Southern Queensland (Appendix B). Participants were informed of their ethical rights, the nature of the interview, that their interview would be audio taped, transcribed and returned to them for comment with the opportunity to add or withdraw any or all of the data. Each participant had the opportunity to ask any questions, complete the informed consent form (Appendix C), and asked if they wanted to choose a pseudonym for use in publication. A careful verbal explanation of the purpose of the study and procedure for the interview was given and the opportunity to ask questions again provided. The right to withdraw from the study at any time was explained, as was the security of their data.

Once the interviewer was satisfied that each participant understood the process, the interview was commenced using a semi-structured interview (Appendix D). All semi-structured interviews lasted approximately one hour, and were conducted face-to-

face in the participants' homes and digitally recorded. Care was taken not to lead the participant by suggesting the direction of the answer. For example, if the participant was finding it difficult to answer a question about themselves, they were often able to answer when the question was rephrased to be about a person who they knew of a similar age or in similar circumstances and then relate it back to themselves. Care was also taken by the interviewer, to use only the terminology used by the participant about a particular topic.

All documentation associated with the interview and transcript carried the chosen pseudonym of the participant as its only identification if they had chosen to use one. All other participants' data was identified by the participant's initials. Each participant was asked questions about what they considered good health and constituted good quality of life for them. They were also asked to talk about what psychological strengths they believed helped them to maintain their health and quality of life.

The interviews were then transcribed and the transcripts were posted to the participants with an accompanying letter (Appendix E). Each participant was then phoned for comments on the transcript of their interview a week later. Only one participant chose to make written comments on their transcript; and changes were made accordingly and the modified transcript returned to the participant for verification. Verification of this modified transcript was made by phone a week later. No other participants requested any changes to be made. The participant whose digital recording was unusable due to technical problems was also contacted and thanked for their participation.

3.5 *Materials*

A semi-structured interview (Appendix D) was chosen as the interview method to provide structure but also to allow each participant the opportunity to freely expand on how their psychological strengths impacted on their health and quality of life. A checklist of 14 common medical conditions was included in the interview. The purpose of the use of the checklist was to gain an understanding of the overall health of the participants in relation to their perspective on their health and quality of life. The participants were also provided with a plain language summary study (Appendix B), and consent form (Appendix C).

3.6 *Participants*

The criteria for the participants in this phase of the study was that they were aged over 65 years and living in either their own home or other independent residential accommodation, receiving some minimal in-home community support service. Older adults with a Resident Classification Scale (RCS) rating of high care or those people with dementia were excluded to avoid confounds associated with their higher care needs. Since the collection of data for this study DOHA has revised the RCS rating system which was replaced by the Aged Care Funding Instrument (ACFI) in March 2008.

To have an appropriate representation of older adults in receipt of low level community support for this phase of the study, contact was made via RSLCare in Toowoomba, Queensland (Appendix F). Contact was also made with a number of other community organisations; however they declined to participate in this study. It is important to note that RSLCare provides community support to a broad range of people

in the general community, including older adults who require services. These community services include services to, but not specific to, returned service veterans. Five of the participants for this study were drawn from RSLCare clients who responded to a letter (Appendix B) sent by their administrator to a random sample of their clients on behalf of the author, and who contacted the author by phone if they chose to participate. The remaining six comprised a sample of convenience derived from contacts of colleagues. One interview was unusable due to technical problems, so none of the data from this participant was used in this study and another interview was conducted. The ten retired participants had been in a range of occupations. The three men and seven women (*N = 10*) had a mean age of 82.4 years. All participants resided in the Toowoomba area. It is important to note that two of the participants had served in the Australian armed services in WWII; however, all had been profoundly affected by the war in various ways.

The following table provides a summary of the age and occupational history of the phase1 participants. Appendix G provides a profile of each participant and their home, which offers the reader a glimpse into the participants' world and context for the comments that were selected to illustrate particular themes.

Table 1

Age, sex and occupational history of participants in phase 1

Pseudonym	Sex	Age	Occupational History
Jean	Female	78	Farmer's wife, home duties
BL	Male	79	Councillor, pharmacist
MPG	Female	89	Home duties
MW	Female	84	Family bakery
RFJ	Male	78	Journalist
Sally*	Female	81	Women's Auxiliary Air Force
WMR	Female	79	Home duties
MJ	Female	72	Stores/clerical Air Force
DR	Male	86	Army engineer/ fencing contractor
DM	Female	93	Army nurse
Valda	Female	78	Secretary/ administrator

Note. $N = 10$, * 'Sally' interview inaudible and unusable.

3.7 *Thematic Analysis*

Whereas in a great deal of nursing research it is common to use a "theoretical lens" to analyse qualitative data, Annells and Whitehead (2007) state that in descriptive exploratory research it is acceptable not to base interpretation on a particular theory. For that reason, the decision to not use a particular theoretical framework was made, as care needs to be taken to maintain the trustworthiness of the data, unbiased by a particular theory.

Furthermore, interviewer and analyst bias in thematic analysis is always a concern in the analysis of any qualitative data set. Gomm (2004) suggests that analysis of qualitative interviews risks disclosing more about the mind of the analyst than the person being interviewed. With those concerns in mind, a manual line-by-line thematic analysis was conducted for this phase of the study and substantiated by a confirmatory analysis of the interviews which was conducted in Leximancer (Leximancer, 2010). Smith and Humphreys (2006) note that while it is still important to recognise the importance of contextual concepts in any work, the use of a tool such as Leximancer to concept map, in terms of language use in written work, provides useful validation to manual methods and is also useful in reducing analyst bias.

3.7.1 Manually Selected Themes

Given that the purpose of the qualitative phase of this study was conducted to guide the choice of measures for the quantitative second phase, the depth of analysis was restricted to the selection of broad themes. The literature review provided the author with a number of areas or concepts that had been found in published research, and which had been shown to be significant factors in health and quality of life of older adults. These concept areas became the framework for identifying various themes to look for in the interview transcripts. A line-by-line analysis was used to identify recurring or prominent themes identified or mentioned by participants. The manual thematic analysis was based around frequency counts of keywords, and the number of times each participant talked about a given topic, ranked in order of importance. As the results of this phase of the study were used to identify concept areas to empirically test in phase 2 of the study, it was important to ensure that the identified themes were as accurate as

possible. The prominent themes manually identified as important in maintaining the health and quality of life by older adults using manual thematic analysis were: health, quality of life, optimism, social network, spirituality, community services, resilience, and community volunteer work.

3.7.2 Content Analysis Using Leximancer

To avoid human error associated with manual thematic analysis, Leximancer (Leximancer, 2010) was developed to automatically group themes, which they refer to as "concepts" using computer semantic-mapping technology. The capability of the Leximancer program to analyse large bodies of text using semantic grouping to produce concept maps has been shown to go some way to overcome author bias (Smith & Humphreys, 2006). Therefore a confirmatory thematic analysis, or content analysis, was undertaken using the Leximancer program. A single document including all the interview transcripts with interviewer content removed was processed using Leximancer. Words identified in the initially produced concept maps as being meaningless to the project, and meaningless parts of general conversation were removed by checking against concept maps produced using Leximancer and participant dialogue. For example, words such as 'used', 'anyhow', 'course', 'mind', 'sit' and 'tell' were removed when initial concept maps using these terms were negatively impacted on by the background noise of these words. Other related words such as 'day' and 'days', 'couple', 'husband' and 'family', 'time', 'day' and 'week' were merged into compound terms to ensure that the concept maps were a meaningful representation of the participants interviews.

Each of the emerging concepts was checked for their validity against the generated output, which included not only a concept map but samples of the participants' dialogue in a thematic summary which was cross-checked for validity. After several versions of the Leximancer concept map were produced and irrelevant words removed, a meaningful concept map emerged that was well supported by participant dialogue sample.

3.8 *Results*

The following participant quotes were chosen to illustrate why the manually selected themes of health, quality of life, optimism, social network, spirituality, community services, resilience, and community volunteer work were selected. This will be followed by both graphical representation of the concepts generated using Leximancer, and a brief discussion and comparison of the manually and Leximancer-generated themes.

3.9 *Manually Selected Themes*

3.9.1 Health

The responses that participants offered as to what they considered as good physical and mental health centred on their ability to do everyday things and being happy.

> *"to do what you wanted to do in the garden and your housework and just generally do what you felt you wanted to do, that you would like to be able to do."*

"To be able to function, to know what's going on in the world, be interested in the world, be able to do just general every day things really."

"I'm reasonably active I suppose but I think I'd have a bit of a problem with nine holes of golf…… I walk the dog twice a day so about probably a couple of k in each walk."

"Well feeling good. Lack of pains. They're the main things, I think that you feel good…you lead a relatively happy life and I enjoy company."

"Well, you've got to be active every day in the week. I've been fortunate, I've been one of those that wouldn't give up because I've played cricket and tennis and golf over the years"

3.9.2 Quality of Life

The way that participants defined their quality of life was largely determined by perceptions of their health.

"You can't have quality of life unless you have health really and that's my definition of health and that's very important in relation to your quality of life."

"Well, good quality of life to me at the moment is that I'm able to still do the bulk of the things myself."

"Quality of life, very much similar to the previous question. It would mean being able to do a lot of the things that I can't do physically now because of arthritis. So being more mobile, therefore being able to perhaps go away a bit instead of being restricted"

Some participants also considered the importance of family, having enough money and feeling safe as an important part of their quality of life.

> *"Oh, well, having enough money I suppose [laugh] one thing and being contented with the things that you do."*
>
> *"Oh, safety is paramount, safety…. Oh, things still happen but we're aware that you have to be careful – that you have to check things. Things happen all around everybody I think but we've always been aware of safety"*
>
> *"Well, having good friends, being close to your family."*
>
> *"You know you always have one of your family that you can contact if you need to, which I have. I'm very lucky because there's a lot of people that haven't got that."*

3.9.3 Optimism

The psychological strengths that participants identified as being important in maintaining their health and quality of life covered a range of overlapping constructs. The most frequent of these was optimism. Other sub-themes of this concept included: having a good sense of humour, being happy, being grateful and laughing.

> *"Well, negativity causes people to become unhappy and they don't advance, they don't achieve, they don't do any of these things if a person is negative."*
>
> *"Well, I think I have a positive mind, that's one of the main things because the mind plays a lot, has a lot to do with your actual health. If you think you're sick, you're sick… I think you've just got to have the right attitude and don't let your health things take control of your life."*

"If you can sit down and have a darn good old laugh. You should hear us around here sometimes…we just laugh and laugh and laugh. Sometimes there's five and six of us just around in the front there."

"I just accepted that people should be lucky, but I know when we have a really good day now I'm grateful, deeply grateful."

3.9.4 Social Networks

The deep importance that all participants ascribed to their social network was striking. Friendships and family connections were deeply valued and profoundly significant to all participants. Family connections were identified as an important sub-theme.

"But the friendships you make are the best things. They are better than any medicine you can get."

"I think family is paramount and I've been blessed with a wonderful family and I know they're there. They're there if I need them or I just want to talk to them or whatever, they're there, and that's all you need …."

"The loneliness is the worst part of getting old. Your friends, we used to have, a lot of wonderful friends, but they've all deserted us. They've gone to a better land so it's a bit lonely. Never mind. Sunday afternoons are the worst."

3.9.5 Spirituality

Many of the concepts identified by the participants overlapped, as is evident from the comment above about loneliness from an 89-year-old woman, talking about friends dying and *"going to a better land"* acknowledges her spiritual beliefs.

Spirituality was identified as important to varying degrees by all participants, and although all came from a Christian background the discussion on spirituality focused on their belief in ‘ a greater being’ or ‘God’ rather than attendance at a place of worship. Many had previously attended church regularly, but as they had become older it was their personal faith that was important. This is illustrated by the following quotes.

“If you haven’t got a lot of faith, I think you lose a lot, but you haven’t got to go to church to have it.”

“I think that most people neglect another aspect of health which is the most important and that is spiritual health.”

“I think if I didn’t pray I wouldn’t be so strong.”

“I have a belief that I don’t have to go to church to have my belief and it helps me.”

3.9.6 Psychological Resilience

For many, spirituality formed part of their ability to cope with daily pressures, and added to their resilience. Their resilience, made up of their ability to adapt to new situations and ability for creative thinking, was evident in the following comments.

“I’m very adaptable, that’s another thing I am. I can adapt myself to anything, any conditions, I have. I must have over the years, mustn’t I?”

“I suppose that's a sort of inner strength. You think – well pick yourself up and get on with it.”

“*Being positive and try and think - If you can’t do it one way, well do it another way- or if you can’t do something there, something else – because always one door shuts as another door will open.”*

"I'm always looking for an easier way to do a thing and I can't see a sense in doing the thing a hard way when there's an easier way to do it. – I mean our bus service, the timetable has completely altered as from this week, well now I've got to learn to a different way"

3.9.7 Community Assistance

Participants were also asked about how the community assistance they received impacted on their life. Assistance included help with domestic chores, meals-on-wheels, and home nursing. For many, the assistance provided another form of social network and was more than having the work done, that they could no longer do.

"If she can spare the time she'll still have a cup of coffee. And a yarn. She'll still have a cup of coffee and that's good medication – better than pills."

"And I have a cleaning lady who comes in once every two weeks, well she cleans through, and she strips the bed and changes it for me, washes the sheets, puts them out on the line and that's a great help. Those are the sort of things that are helpful."

"...because of (agency name) it's enabled us to live in our home independently you know with their help but I've always felt that too many people take the easy way out and they think, "Oh we will go into a retirement village and everything's done for us, you know" and I think that's just being lazy and the easy way out and you lose your independence"

3.9.8 Volunteer Work

The importance of social contact was also evident in the comments participants made about volunteer work, of things they did from home to help others which gave them a feeling of being useful and of value to their community. The following comments provide a good summary of their feelings.

"Well, I mean my social contact really is for them but it does me good as well."

"You know if I suddenly couldn't do a lot of these things that I do do, I would be really bored and I'd be hard put to think up some way to get around that."

"He's always wanting to fix things for people. He loves fixing things. He loves to do little things to please people."

3.9.9 Impact of WWII

The impact of WWII had a profound impact on the majority of the phase1 participants either directly or indirectly. Many made comments about the way they do things now or the way that experiences during the war continues to influence their current thinking or behaviour.

"Well, I was brought up during the Depression and I do not like waste. I can't help myself. I just don't like it and I used to hate wasting"

"I've been to lots of schools, always Grade 7 to teach them – to tell them about our history, not about War, but you get some unusual questions shot at you of course and it's surprising how Grade 7's – see we don't get taught any of our history irrespective of whether there's a war, our own history in our schools."

"...but after the War when we got on a bit and our children were starting to grow up and we gave them more than we should of because of our hard times."

"He came back from World War II a very sick man and he taught the four of us to always look around and see what you can do for somebody else."

3.10 *Leximancer-Generated Concepts*

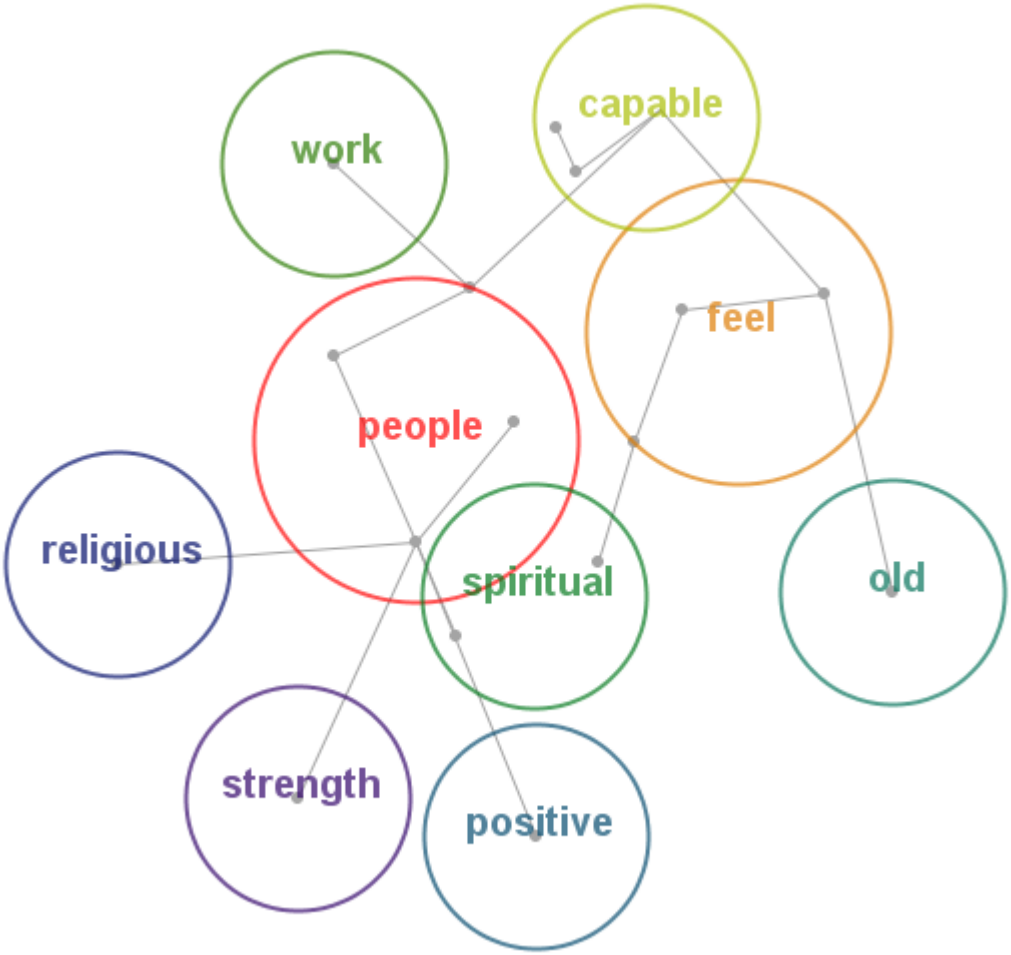

Figure 2 Leximancer Concept Map of Phase1 Data

3.11 ***Comparison of Manual and Leximancer-Generated Themes***

The Leximancer-generated concept map produced from an analysis of the interview transcripts of the phase 1 participants clearly demonstrates the main concepts of the importance of people, strength, capability, spirituality, religion and positivity. A comparison of these concepts to the manually extracted thematic analysis is displayed in Table 2 below. The additional concepts that make up the map in Figure 2 are 'work', 'feel' and 'old'. According to the Leximancer analysis, the concept of 'feel' was related to strong emotion felt by the participants on a number of matters. The following quotes illustrate these concepts which are also related to the concept of 'strength' and the manually determined theme of optimism.

"Depression is a word that I don't really know anything about or stress you know. You might have stress, but we didn't call it stress in our days, that's how I feel"

"*Yes I feel safe. It doesn't worry me living on my own."*

The Leximancer-generated concept of 'work' was strongly related to the manually generated concept of volunteer work:

"I do locum work for people and up until last year I was sort of too busy with that to commit to any lengthy sort of commitment to U3A, so it was only last year that when all this fell away a bit."

Not surprisingly, and also given the population under consideration, the concept of 'old' was generated by Leximancer, and is related to the manually generated theme of (physical) health.

"I'm aware we have to be very ultra careful, especially as we've got older, not to fall or slip. Not to do more than we physically are able to do."

The Leximancer-generated concept of ‘people’, although strongly aligned with the manually extracted theme of ‘social network’, also related to community assistance.

“Sometimes they will do a little shopping for us. Sometimes take us down the town and that helps too because we were self- sufficient before now.”

Table 2

Comparison of Manual Themes and Leximancer Concepts

Manual analysis theme	Leximancer analysis concept
Health	Old
Optimism	Strength, positive, feel
Social network	People
Spirituality	Spiritual, religion
Community assistance	People
Resilience	Capable
Volunteer work	Work

It is important to keep in mind that there is likely to be considerable overlap in a number of manually and Leximancer-generated concepts due to the nature of the topics discussed in the semi-structured interviews and the population under investigation. For ease of understanding, the remainder of this thesis will refer to the manually generated themes which will incorporate the Leximancer-generated concepts as demonstrated in Table 2.

3.12 *Discussion*

The qualitative analysis of phase 1 provided a rich source of data about what psychological strengths the participants used to maintain their health and quality of life. Most findings of this study were consistent with the literature reviewed. All participants considered maintaining a positive outlook important, which is well supported by the literature. All reported that remaining optimistic was vital to feeling well. This finding is well supported by studies such as that by Scheier et al. (1989) who found faster recovery rates from illness and surgery in those individuals with a positive outlook.

Being adaptable, resilient and not giving up were common comments provided by many participants. Part of this construct is about being able to adapt to new situations. Many participants mentioned this in relation to adapting their lives as they met health challenges with increasing age. This finding is supported by Kaplan (2002) who asserts that adaptable individuals are more likely to engage in positive health promoting behaviours.

The concept of spirituality and its importance to the older adult's health and quality of life was evident in many participant's responses and is well supported in the literature (Kass, et al., 1991). Although some participants stated that spirituality was not a dominant part of their life, most found peace in their faith or prayed regularly, although none attended church anymore.

The strength of the importance of social network to all phase 1 participants was a very powerful theme. House et al. (1988) affirm the importance of this vital source of strength for the older person, and recognize the positive contribution social networks

make to health. All participants commented on the value of their family and other social networks in many aspects of their life.

The assistance provided by service providers to the participants also created social network links that were deeply valued. The physical value of the assistance was important to participants in maintaining their ability to live relatively independently, but for many it also provided a safety-net. If there were problems the participants knew they were able to access help if they needed it. The peace of mind this provided was immeasurable for many participants.

The feeling of being valued for what they were able to do for others was echoed by many. For one participant, being able to make toys to donate to charity gave the same feelings of worth as a man who made house numbers for his neighbours, or a woman who was compiling a booklet of handy hints and recipes, or the man who was the treasurer of a service organisation. All reported how much pleasure they derived from what they were able to provide to others. In their study of volunteering in older adults, Musick, Herzog,and House (1999) found that volunteering was a protective factor against mortality provided it did not exceed 40 hours each year, and that the effect was the most robust in those who lived alone which was likely to be due to the social networks that the volunteering provided. A letter with a summary of the findings of phase1 was sent to each participant who requested one (Appendix H).

One of the limitations of this study is the transferability of the findings to future generations due to the huge impact on the participants of World War II. Although some participants had been directly involved in the armed services, even those who were not were still deeply affected (Davies, 2001). The consistency in the participants' responses

and recurrence of themes in the phase1 analyses were striking, and are therefore unlikely to be incidental. For that reason it is important to be able to empirically test the strength of the relationships between the identified strengths and the health and quality of life of older adults in phase 2.

Chapter 4: Phase 2 Materials

'None are as old as those who have outlived enthusiasm.' *Henry David Thoreau*

4.12 *Introduction*

The qualitative data from phase 1 provided a rich resource regarding what older community-living adults felt were important psychological strengths in relation to their health and quality of life. The second phase of this study was designed to provide empirical support for the psychological strengths identified by the participants in phase 1 in relation to their health and quality of life. This chapter will discuss the choice of measures used in phase 2 of this study. The development of the demographic questionnaire used will also be presented, followed by a description of the other measures used in the study, including a summary of the results of psychometric validation of the measures, the rationale for their inclusion, and relevance for use with an aged population. It is important at this juncture to identify the questions that were considered important to be answered by this research.

4.13 *Research Questions*

The research questions for phase 2 of this study were an extension of the research questions for phase 1. The data from phase 1 provided greater clarity for the direction of phase 2 and the ability to be much more specific in stating the research questions in the second phase of this study. In summary, phase 1 sought to examine which psychological strengths older adults identified as being important and how the participants related these strengths as important to their health and quality of life. Phase 2 was designed to

examine the relative importance of the identified strengths to the health of older adults living in the community, and to examine the importance of any demographic factors in any aspects of their health. Therefore the questions that phase 2 of this study will answer are:

- Which predictor variables, if any, are of relative importance to the health of older adults living in the community?
- What is the strength, if any, of these predictor variables?
- Do the demographic variables, age, sex or marital status, moderate the relationship between any identified predictor variables and the health of older adults living in the community?
- What are the important factors in maintaining health and quality of life of older Australian's relating to community-based aged-care services as identified by the recipients of those services?

The purpose of answering these research questions will be their importance in the design of existing community activities or programs for older adults in the future. If any of the psychological strengths are able to be identified as being of importance in relation to the health of older adults, and if these strengths are able to be enhanced, there is the potential for improving the quality of life of older adults in addition to the potential for financial savings in relation to healthcare. As the number of older adults living in the community increases, it is vital for governments to use a number of strategies provided by having a deeper understanding of the psychological profile of older adults in planning for health care and associated costs for the continuing care of this group of people.

Additionally, adding to the growing body of research of influential factors in the health of older adults is an important consideration. Nay and Garrat (2009) note that with increasing pressure on the existing community aged-care service paradigm, consideration must be given to other service models additional to existing services in aged care. All factors that may provide protective health factors to older adults deserve research focus. It was therefore considered important to examine the moderating role of sex, marital status and age in self-reported health which have been identified as three of the major influencing factors.

4.13.1 Materials for Phase 2

It is important to note that the measures chosen for phase 2 of this study were selected to provide further answers to the research questions regarding the psychological strengths profile of older adults in relation to their health and quality of life. A decision not to include a measure of quality of life as an additional outcome variable was made for two reasons. The first reason was due to the way in which the older adults interviewed in phase 1 viewed their quality of life to be so dependent on their health. There was very little distinction made by the participants in these two domains. The second reason for not including a measure of quality of life was due to the potential of over-taxing the participants by too large a survey battery and also potentially reducing the survey return rate due to non-participation.

It was also decided not to include measures on social network and spirituality that the phase 1 participants had considered as important aspects of their lives, again out of consideration for the time and energy that would have been required to complete such a volume of surveys. It should be noted that these were also important aspects of life to

the phase 1 participants and, despite their non-inclusion, their importance in future research should not be overlooked.

The measures chosen for phase 2 of this study were: a demographic questionnaire; one outcome variable measure of subjective health status (Short Form 36 v2) (QualityMetric, 2007), and three predictor variable measures (Older Adult Attributional Style Questionnaire (Isaacowitz & Seligman, 2001), Life Orientation Test – Revised (Scheier, et al., 1994), and Connor-Davidson Resilience Scale (Connor & Davidson, 2003)).

4.13.2 Demographic Data Collection Questionnaire

The demographic profile and community service collection questionnaire was developed by the author to collect data considered relevant to the research question. It was deemed important to have sufficient information regarding the participants to enable statistical comparison between different demographic participant groups. The demographic information sought from the participants included information about gender, age group, marital status, area of residence, living arrangements, the type of accommodation, and if they participated in any volunteer activities.

Additionally participants were asked about the community support services they were receiving. This information included the type of service/s they accessed, satisfaction with the service/s, satisfaction with the care they received, and level of satisfaction with the charges for these services. Finally participants were asked how these services impacted on their health and an opportunity was provided for participants to provide written comments if they wished at the bottom of the Participant Demographic Information Form (Appendix I).

4.13.3 Previously Validated Measures

The previously validated measures were chosen on suitability to answer the research questions, according to the data from phase 1 and their sound psychometric properties with the population being studied. The psychological strengths that were selected to measure in phase 2 were resilience and optimism. Optimism was measured using a measure of both dispositional optimism, and explanatory style. A summary of each of the measures chosen for this phase of the study follows:

- Subjective health – Short-Form 36 Version 2 (SF 36v2) (QualityMetric, 2007) (Appendix J)
- Explanatory style (optimism) – Older Adults Attributional Style Questionnaire (OAASQ)(Isaacowitz & Seligman, 2001) (Appendix K)
- Dispositional optimism (optimism) – Life Orientation Test – Revised (LOT–R) (Scheier, et al., 1994) (Appendix L)
- Resilience – Connor Davidson Resilience Scale (CD–RISC) (Connor & Davidson, 2003) (Appendix M).

4.13.3.1 Subjective Health

The measure chosen to measure subjective health was the Short Form 36 Version 2 (SF 36v2) (QualityMetric, 2007) which is a 36 question, short-form, multi-purpose health survey; a widely used measure of health-related quality of life (HQol), although there is little documentation in its use in an aged population. The most recent version of the SF-36 (Short Form 36) has had minor alterations from the original version, and has been widely used and documented in more than 4000 studies. There has been considerable

psychometric evaluation of both the original and current version of the SF-36 (Ware, Snow, Kosinski, & Gandek, 1993). The precursor to the SF 36v2, with a mix of scaled and dichotomous response formats, led to some confusion resulting in non-response on some items, which has been corrected with the use of five-level response formats on all dimensions in the SF 36v2.

A systematic review of the use of health-related quality of life measures in older populations has determined that the specific health challenges of this group are not well captured by any of the current HQoL measures and that this is an area of increasing importance in healthcare and health assessment (Hickey, Barker, McGee, & O'Boyle, 2005). To address some of the concerns around both age-group and culture related population differences Hawthorne, Osborne, Taylor and Sansoni (2007) compared Australian computed population data according to age-groups and compared this to the existing SF 36v2 United States normative data. Further rationale for its inclusion in this study is that the SF 36 has been adapted and validated for use in Australia (McCallum, 1995; Sanson-Fisher & Perkins, 1998) with only minor language, idiomatic expression and distance measurement (i.e. mile to kilometre) unit changes to reflect the Australian population.

A number of scoring methods have been posited, including means sub scores for each subscale, two summary scale scores (physical component summary) and mental component summary) and a 0-100 algorithmic transformation of the eight dimensions. Using the 0-100 scoring method, scores are transformed to have a mean of 50 and a standard deviation of 10, with an interpretation of scores above 50 being better than average, and a score of 100 being perfect health (Bowling, 2005).

From the 36 questions, there are 8 scales (physical functioning, role-physical, bodily pain, general health, vitality, social functioning, role-emotional, mental health), of which the first four contribute to the summary measure physical health (Physical component summary (PCS)), and the last four contribute to mental health (Mental component summary (MCS)).

The reliability of the eight scales and the two summary measures has been examined using internal consistency in addition to test-retest methodology. A number of studies, including comparisons between different socio-economic and diagnostic groups, have conducted reliability analyses for physical and mental health summary, measures with most reliability co-efficients exceeding 0.9 (Ware, Kosinski, & Keller, 1994).

4.13.3.2 Explanatory Style

The first measure of optimism selected for use in this study was a measure of explanatory style. One of the main advantages of using the Older Adults' Attributional Style Questionnaire (OAASQ)(Isaacowitz & Seligman, 2001) is that it has been modified for use with older populations. The OAASQ is the second step in revising the Attributional Style Questionnaire (ASQ), which was originally constructed by Petersen, et al. (1982) to examine the factors involved in the way people perceive various events. Petersen, et al. were interested in the ways in which people attribute the causes of various events in their lives and how this impacts on them developing depression. The first modification of the ASQ was the development of the Older Adult Version (ASQ – OAV) by Isaacowitz and Seligman (2001) for use with older populations. Both the first and second modifications of the ASQ involved modification of language and scenarios

to be more appropriate for an older age group, particularly in relation to associated health and cognitive changes.

The OAASQ is comprised of 12 vignettes, with six being of a positive nature and six of a negative nature. Half of both the positive and negative items are interpersonal / affiliation items and the other made up of half health/cognition items. The health/cognition items on the OAASQ replaced achievement items on the original ASQ are considered much more salient to the lives of older adults (Isaacowitz, 2005).

To complete the questionnaire participants are asked to rate their perceptions of internality, stability and globality on a 7-point Likert-type scale. Responses on internal attribution items range from 1 'Totally due to other people or circumstances' to 7 'totally due to me'. Similarly responses on items relating to stability range from 'Will never again be present' to 7 'Will always be present' and responses relating to globality ranging from 1 'Influences just this particular situation' to 7 'Influences all situations in my life'. The total score is the sum of the averages of the negative scenarios which is subtracted from the sum of the averages of the positive scenarios, giving a final composite score range from +21 to -21. Higher (positive) scores are indicative of a more optimistic explanatory style, while lower (negative) scores suggest a more pessimistic explanatory style.

Maximum negative and maximum positive composite scores are 21 in both cases, with a positive composite score of 21 indicating high levels of optimism and negative composite score of –21 indicating higher levels of pessimism. This was the chosen method of scoring for the current study as it provides the most robust representation of optimism versus pessimism on this measure. All of the negative event

items are summed and divided by the number of items. The same process is repeated for the positive events.

Other scoring methods include creating composites from the addition of the affiliation items (positive and negative) and dividing the sum by the number of items. The process is repeated for health/cognitive items. Petersen, et al.(1982) note that it is possible to derive a total of 20 different subscales by creating composite scores. A number of studies have used different composite scores in their analyses, which have made comparisons between some studies challenging (Isaacowitz, 2005; Isaacowitz & Seligman, 2001, 2002; Schueller & Seligman, 2008).

Many of the possible composite scores which although they provide a range of information about the participant's views according to various scenarios, do not provide a sound overall summary of only explanatory style optimism or explanatory style pessimism in relation to the scenarios posed in the OAASQ. The decision to use explanatory style positive events and explanatory style negative events composite scores in the data analysis for this study was made to gain as much information about older adults thinking about either positive or negative events as possible. Although this view is not well supported by Petersen (1991), he does state that the use of the good/bad dichotomy measures does demonstrate good independence of the good and bad events and subsequently a more robust relationship with other measures. Therefore the decision to use two levels of explanatory style negative events and explanatory style positive events for use in the analysis was made

Isaacowitz (2005) reports modest Cronbach's alpha reliability results for OAASQ with $\alpha = .69$ for positive health/cognition, and $\alpha = .63$ for negative

health/cognition. These results were consistent with previous statistics from ASQ, which makes references to this original version being more valid in research in studies where the OAASQ is used in older populations.

4.13.3.3 Dispositional Optimism

The second measure of optimism chosen for this study was the measure of dispositional optimism. This was measured using the Life Orientation Test – Revised (LOT–R) version (Scheier, et al., 1994). The original version of the measure for dispositional optimism, Life Orientation Test (LOT) contained two additional scale items which appeared more closely related to the concepts of positive reinterpretation and growth. These were removed due to concerns raised about overlap in item content with the construct of coping (Scheier, et al., 1994). The LOT–R is comprised of a total of ten items: three positively worded items, three negatively worded items and four filler items. In this measure participants are asked to respond to ten statements such as 'I hardly ever expect things to go my way' using a 5-point Likert-type scale ranging from zero ('strongly disagree') to 4 ('strongly agree'). The items which are negatively worded are reverse coded before they are scored. Scores for filler items are not included in the total score. Total scores range from 0 – 24, with higher scores indicative of higher rates of dispositional optimism.

From the results of their 2006 study, Steptoe et al. suggest that using the full scale LOT–R score in statistical analyses rather than the subscales of dispositional optimism and dispositional pessimism, which are the sums of the positive and negative items respectively, produced a measure more relevant to health expectancies in an older population. Other studies (Isaacowitz, 2005) support the use of the dispositional

optimism and dispositional pessimism subscales due to independent correlates. Similarly Scheier, Carver and Bridges (1994) recommend that the full scale LOT–R score be used in primary analyses but the subsequent analyses could include analyses of the bipolar subscales if desired. In their 2004 study into health-related hardiness in older women, Smith, Young and Lee support the use of the full scale LOT–R score in statistical analyses. Therefore, with the recommendations of previous authors particularly in relation to older populations which support the use of the full scale LOT–R scores, it was decided to use a single measure for this study.

The principal components factor, using Varimax rotation of the six LOT–R items, yielded one factor which accounted for 48.1 % variance, with all items loading at .58 or above (Scheier, et al., 1994). Correlation scores between the LOT and LOT–R was demonstrated to be high at r = .95 indicating that previous research where the LOT was used could be considered for LOT–R studies. Test re-test correlations over 28 months (intervals of four months) on a group of college students demonstrated good reliability: 4 months (r =.68); 12 months (r = .60); 24 months (r = .56) and 28 months (r = .79) and indicate that the LOT–R is quite stable over time. Although there are limited normative data for older populations, one community based study included a sample with an age range of 36–82 years(M = 64.3 years) providing some validity for use with older community-based populations (Scheier, et al., 1994).

4.13.3.4 Resilience

The final predictor measure chosen for this study was a measure of resilience. According to Luthar and Cicchetti (2000), resilience is a two-dimensional construct that comprises positive adjustment and adaptation to adversity. They further suggest that

resilience as such is not a personality trait but the result of a process of positive adaptation. Their research with children suggests that the ability to identify individuals at risk and those vulnerable to maladaptive adjustment to adverse circumstances is vital in the development of intervention strategies and social policy to protect vulnerable groups.

In response to the recognition of the need for a tool to measure resilience, Connor and Davidson (2003) developed the Connor-Davidson Resilience Scale (CD–RISC). They assert that in response to a disruption in 'biopsychospiritual homeostasis' that an individual 'reintegrates' with one of four outcomes: the first is a growth and positive adaptation with new higher level homeostasis, the second where the individual returns to the starting point without growth; thirdly a recovery of pre-existing homeostasis with a loss; and finally a dysfunctional maladaptive state.

The development of the CD–RISC was born from the need for a tool to measure an individual's adjustment to one of these four outcomes. The developer's interest was provoked by an interest in Post Traumatic Stress Disorder (PTSD) treatment and historically in a 1912 expedition to the Antarctic by Sir Edward Shackelton, who, the authors observed, exemplified many attributes of resilience. The scale was developed by drawing on the work of Kobasa (1979), Rutter (1985) and Lyons (1991) into hardiness, goal setting and adaptability, and endurance and patience respectively. Additionally Connor and Davidson (2003) included items regarding optimism and faith, which they felt were salient to the construct of resilience. The CD–RISC consists of 25 items which are measured on a Likert-type scale from: not true at all (0), to true nearly all of the time (4) with a score range of 0-100. The sample consisted of five study groups (n = 806)

with a mean (*SD*) age 43.8 (15.3) (*n* = 763). A problem with missing data in this study means that the demographics of some subjects were unavailable.

The study groups consisted of a random-digit dial based general population sample of particular interest to the current study (*n* = 577), a group of primary care outpatients, private practice psychiatric outpatients, a group of patients with generalised anxiety disorder (GAD), and a clinical trial group with PTSD.

A pairwise comparison of scores between groups using the Wilcoxon Rank Sum Test ($p<.05$) revealed a significant difference between the general population group and all other groups, and the primary care outpatients and the GAD and PTSD groups. This would indicate that the CD–RISC differentiates well between groups.

Test re-test reliability using subjects with little or no clinical change for those subjects in the GAD and PTSD groups produced an intraclass correlation coefficient of 0.87. Internal consistency was measured using Chronbach's alpha for the full scale general population group was 0.89 and item-total correlations had a range from 0.30-0.70. Convergent validity was measured by comparison of the psychiatric outpatient group CD–RISC scores with the Kobasa Hardiness scores in Pearson $r = .83$, $p < .0001$, Perceived Stress Scale (PSS-10) Pearson $r = –.76$, $p < .001$, and the Sheehan Stress Vulnerability Scale (SVS) Spearman $r = –.32$, $p < .001$. Both negative correlations were indicative that higher levels of resilience are consistent with lower levels of perceived stress and vulnerability from perceived stress. Furthermore a comparison of psychiatric outpatients and GAD patients (*n* = 40) CD–RISC scores with the Sheehan Disability Scale (SDS) produced a significant negative Pearson $r = –.62$, $p<0001$, indicating that higher levels of resilience are associated with less disability and greater social support.

An evaluation of divergent validity was made by correlating CD–RISC scores of GAD patients with Arizona Sexual Experience Scale (ASEX) scores. No significant correlation was observed with either initial testing (n=23) r=-0.34, p=.11, or at final testing (n=19), r=-0.30, (p=.21). Factor analysis using ORTHO-MAX rotation revealed five factors, with eigenvalues of 7.47, 1.56, 1.38, 1.13 and 1.07 respectively. The five factors were: reflection of personal competence; high standards and tenacity; trusts in one's own instincts and tolerance of negative effect; strengthening effect of stress; positive acceptance of change and secure relationships; control and spiritual influences. The authors suggest that the CD–RISC is suitable for research into possible biological aspects of resilience, identifying and nurturing resilient qualities in a clinical setting, and as a tool to screen and identify individuals at high risk, in high-stress situations or occupations.

4.14 ***Summary***

This chapter has defined the research questions and usefulness of this study. The rationale for the choice of previously validated measures used in phase 2 of this study was discussed, as was the development of the demographic data collection questionnaire. The rationale for the inclusion of various demographic sections and data related to community service provision was evaluated in the discussion of the development of the demographic questionnaire. The psychometric properties of each of the previously validated instruments used in this study were also appraised. The following chapter provides a description of the procedures used for data collection and subsequent data entry.

Chapter 5. Phase 2 Procedure

'If wrinkles must be written upon our brows, let them not be written upon the heart. The spirit should never grow old.' *James A. Garfield*

5.1 *Introduction*

This chapter will present the procedure used to conduct phase 2 of this study. The ethical clearance required to conduct this study will also be discussed. Inclusion criteria for participants for this phase of the study will be followed by participant recruitment procedures and the means of obtaining the data from participants. The method of coding each of the variables in preparation for data entry and statistical analysis will also be discussed.

5.2 *Ethical Clearance*

Before this phase of the study began, an extension of the original ethical approval was obtained from the University of Southern Queensland Human Research Ethics Committee (Approval Reference Number H06STU577) (Appendix N). This ethical approval also satisfied the ethical requirements for Spiritus and RSLCare.

5.3 *Participant Criteria*

The criteria for the participants for this phase of the study was that they were aged over 65 years and living in either their own home or other independent residential accommodation. They also needed to be in receipt of some minimal form of in-home community-based aged-care support service. Older adults with a Residential Service Care

(RCS) rating of high care or those people with dementia were excluded to avoid confounds associated with their higher care needs. The RCS was a scale used to rate older adults in a nationally consistent manner to enable comparison for resource allocation for people living in aged care facilities throughout Australia. Each person was scored on 20 elements ranging through mobility, communication, medication, social domains, continence and nursing procedures, which produced a ranking from high to low care. The scale resulted in a determination of funding and calculation of the need for support and physical assistance (Australian Institute of Health and Welfare, 2007a). Since the collection of the data for this study the DOHA has revised the RCS rating system, which was replaced by the Aged Care Funding Instrument (ACFI) in March 2008. The ACFI similarly provides an assessment of the older person's need for care in the domains of activities for daily living, behavioural and complex health care needs (Department of Health and Ageing, 2007)

5.4 *Participant Recruitment*

To recruit participants, two community service providers were contacted. They agreed to mail on behalf of the author, a pre-prepared set of surveys to a random selection of clients who met the inclusion criteria for this study. As an incentive for the service providers, the author offered to collect community service data and share the information gleaned with them. The sample of 620 participants was split between two community service providers, with 300 coming from Spiritus Nursing Service and 320 from RSLCare.

Each of the two participating community service organisations was sent the prepared, post-paid and ready-to-post envelopes which they had agreed to post to a random selection of people in their client pool who met the criteria for the study. Each

page of the participant's materials, including the envelopes, was marked with a unique numerical identifier. Only the organisation that posted the survey materials had access to the list showing the client and their unique numerical identifier. Spiritus posted 300 surveys and RSLCare posted 320 on behalf of the author in June 2007. Each participant received an envelope from their supporting organization containing:

- Letter of introduction from Spiritus (Appendix O)/RSL Care (Appendix P)
- Letter of Introduction from University of Southern Queensland (Appendix Q)
- Consent Form (Appendix R)
- Demographic information form – (Appendix I)
- Health survey (SF 36 – 36 item health checklist) (Appendix J)
- Explanatory style (optimism) survey – Older Adults Attributional Style Questionnaire (OAASQ) (Appendix K)
- Dispositional optimism survey – Life Orientation Test–Revised (LOT–R) (Appendix L)
- Resilience survey – Connor Davidson Resilience Scale (CD–RISC) (Appendix M)
- Reply-paid envelope addressed to researcher.

On behalf of the author, a reminder letter was posted to all 620 participants by Spiritus and RSLCare two weeks after the original surveys were posted (Appendix S).

5.5 *Coding of Variables*

5.5.1 Demographic Information

A number of variables were coded to allow for quantitative analysis between participant groups. For the purpose of data analysis gender was coded as 1 = male, 2 =

female. The age of respondents was also coded into two categories. The AIHW (2008) makes a distinction between different older age groups in recognition of broader health differences between groups. For the purposes of statistical analysis older adults are frequently divided into either two or three age groupings. Typically these groups are ages 65 to 74, 75 to 84, and 85 plus. Many publications also make a two-category distinction of those older adults aged 65–84, and 85 plus. For this study a dichotomy was made between those participants aged 65 to 84 years: 1 = *young old*, and those aged 85 and older: 2 = *old old*.

Marital status was coded as: 1 = married, 2 = single, 3 = divorced and 4 = widowed. A categorisation of the living arrangements of each participant was also made. Participants were asked to note if they: 1 = lived alone or 2 = lived with others, and then to note the number of others with whom they lived. They were also asked to note the postcode of the geographical location or residence.

The Australian Standard Geographical Classification (ASGC) is an Australian geographical area classification system that provides codes for geographical locations based on postcode and determines remoteness from services to allow for quantitative comparison between regions (Commonwealth of Australia, 2003). The index of remoteness is titled Accessibility/ Remoteness Indicator of Australia (ARIA). The continuum for ARIA is major cities of Australia, inner regional Australia, outer regional Australia, remote Australia, very remote Australia and migratory.. For the purpose of this study participants were coded as living in: 1 = major cities of Australia; 2 = inner regional Australia; 3 = outer regional Australia, 4 = remote Australia, 5 = very remote

Australia and 6 = migratory. The migratory category refers to those areas offshore, shipping or migratory census districts, and was not relevant to this study.

Finally, in the general demographic section, participants were asked about any voluntary work in their community. This question was not coded and a space was provided for responses. The response rate and the types of responses will be discussed in the following chapter. A summary of the demographic information sought in relation to the community service organisations follows.

The initial demographic information section was followed by five questions about the community services the participant was receiving. Question 1 asked about the type of services they were receiving; the five responses were coded as follows: 1= home help, 2 = community nursing, 3 = meals on wheels, 4 = community transport, and 5 = other. This was followed by questions regarding each participant's level of satisfaction with the community service itself and the actual support staff providing the services in their home. Both questions were rated on a four-point continuum from very satisfied to very dissatisfied and were coded as: 1 = very satisfied, 2 = satisfied, 3 = dissatisfied, and 4 = very dissatisfied.

Participants were then asked about the charges related to the services, and responses were rated as 1 = too high, 2 = appropriate, and 3 = too low. This was followed by a question about the impact of the provision of community services on the participants' health, rated as 1 = very positively, 2 = positively, 3 = negatively, and 4 = very negatively. The final section invited participants to provide comments about how the community services could be improved.

5.5.2 Short Form 36v2 (SF–36v2)

The SF36v2 (QualityMetric, 2007) which measures subjective health was coded using the coding system as specified by QualityMetric, which owns the rights to this survey. Raw data was entered into the QualityMetric online data system which calculated eight sub scores and a physical component summary (PCS) and mental component summary (MCS) for each participant. The four sub scores that comprise PCS are: physical: role function, role physical, bodily pain, and general health, while MCS is made up of: vitality, social function, role emotion and mental health. These sub scores combine to form standardised population norms which summarise physical and mental health into PCS and MCS respectively.

5.5.3 OAASQ

The Older Adults Attributional Questionnaire (OAASQ) (Isaacowitz & Seligman, 2001) measures explanatory style, one of the two types of optimism and has a number of sections. Each of the 12 vignettes in the OAASQ has three associated sub questions relating to causes that are internal (due to factors about me), causes that are stable (going to last forever) and causes that are global (going to affect everything). Each of these three response blocks have a 7-point Likert-type scale associated with the response choices. Internal response choices range from: 1 = totally due to other people or circumstances, 4 = equally due to both, through to 7 = totally due to me, with other scores grading in between. Similarly, factors related to stability range from: 1 = will never again be present, 4 = may be present, through to 7 = will always be present with other scores, grading in between. Finally, global factor choices ranged from: 1 =

influences just this particular situation, 4 = influences several areas of my life, through to 7 = influences all situations in my life with other scores grading in between.

5.5.4 LOT–R

The Life Orientation Test–Revised (LOT–R) (Scheier, et al., 1994), which is the second most dominant research type in optimism (dispositional optimism), is comprised of ten questions scored on a 5-point Likert-type scale. Coding of the scores on the LOT–R was less straightforward than other questionnaires due to the nature of the questions on this measure. Positive items were coded as: 0 = agree a lot, 1 = agree a little, 2 = neither agree or disagree, 3 = disagree a little, and 4 = disagree a lot. The coding of the negative items was the reverse of this. The score range for the LOT–R is 0 – 24.

5.5.5 CD–RISC

The 25 questions that make up the Connor-Davidson Resilience Scale (CD–RISC) (Connor & Davidson 2003) were scored on a 5-point Likert-type scale. The items on the CD–RISC were coded as: 0 = not true at all, 1 = rarely true, 2 = sometimes true, 3 = often true, and 4 = true nearly all of the time. The CD–RISC has a score range of 0–100.

5.5.6 Summary

This chapter outlined the procedure used in phase 2 to recruit participants utilising the assistance of two community service organisations. Ethical clearance and inclusion criteria for participants were also discussed. Finally, the way in which variables for the study were coded in preparation for data entry and analysis was described. The surveys were mailed to randomly selected participants meeting the selection criteria for this study in the last two

weeks of June 2007, by the two community service organisations. This was followed by a reminder letter sent two weeks later. The following chapter presents the results of phase 2.

Chapter 6 Phase 2 Results

'As we grow older, our bodies get shorter and our anecdotes longer.' *Robert Quillen*

6.1 *Introduction*

This introduction will be followed by data screening procedures, including a check for missing values, normality of distribution of variables, and checks for outliers. The remainder of this chapter will present the results of phase 2 of the study, starting with a presentation of demographic information. Tabular presentation of community service data will follow. A summary of qualitative comments made by phase 2 participants will also be presented and discussed. Descriptive phase 2 population data will be presented in a number of tables, and comparisons of various demographic group data in relation to subjective health measures will also be made. A multivariate statistical analysis of the measures of psychological strengths of the participants, using multiple regressions, will be presented in relation to the outcome variable of subjective health status with statistical analysis between various groups within that data.

6.2 *Data Screening*

Initial data screening was undertaken to identify missing data, out-of-range scores**,** duplicated cases, and outliers. Examination of frequencies showed there was less than 5 % missing data and no out-of-range scores. Tabachnick and Fidell (2001) assert that where less than 5% of data is randomly missing from a large data set, almost any procedure for handling the missing values yields similar results. As there was no pattern in missing data and it was less than 5%, this missing data was replaced with the mean

of nearby points using SPSS (SPSS, 2008). As the data from SF-36v2 was calculated into the two summary and eight sub scores using the QualityMetric-certified online scoring service (Quality Metric, 2010) and algorithmic software on behalf of the author, any missing data (again less than 5%) was calculated using the method built into their calculations.

No univariate outliers were identified ($z = 3.29$, $p = .00$). Further screening to identify multivariate outliers detected no multivariate outliers using the Mahalanobis distance, X^2 (4) = 18.47, p =.00). Casewise diagnostics revealed no residual outliers.

Assumptions of parametric data were examined, including normality, linearity and homoscedasticity. To examine normality, frequency distribution of variables was assessed. A visual examination of the histogram of the data showed a predominantly unimodal, symmetrical, normal curve, with no obvious signs of either skewness or kurtosis. Skewness and kurtosis values should be zero in a normal distribution, and analysis showed that all variables had skewness and kurtosis values that were close to zero. A final assessment of normality was employed by examining the distribution of data within the normal probability plot (P-P), which showed no major deviations from normal linear distribution. Overall, these assessments indicate that the parametric assumption for normality was met.

Linearity was assessed by examining a matrix scatterplot of all variables. The matrix showed a predominantly straight-line relationship between the variables, indicating that the second assumption of linearity for parametric data testing was met. Homoscedasticity was examined using a regression standardised residual scatterplot. The distribution of the residuals was evenly spread around the mean (zero), therefore,

the third parametric assumption of homoscedasticity has considered met. Data was also assessed for collinearity by examining tolerance and Variance Inflation Factor (VIF) values. The VIF value for each variable was below two, with an average that was close to one; hence collinearity was not a problem.

6.3 *Summary Descriptive Statistics*

A summary, including tables, of the demographic information of the phase 2 participants follows a diagrammatic summary of survey return rate. Information pertaining to the community services is summarised and includes information about service type and satisfaction. A short synopsis of the participants' comments relating to their volunteer work and community service provision follows these tables.

A table of the descriptive statistics of the outcome variable and each of the predictor variables summarises this data. This is followed by a multiple regression analysis and the results of the subsequent analyses which investigated the moderating effects of age, sex and marital status in the relationship between health and the predictor variables.

6.3.1 Descriptive Demographic Information

As is evidenced by the data in Table 3, the overall survey return rate was 24.76% (N = 156) of the 620 sent out. An additional 14 participants returned uncompleted surveys. These were destroyed and were not considered part of the data set. As the exact date of the posting of each of the surveys and the reminder letters to the participants was not made available to the author, no data was available regarding the response to the reminder letter.

Figure 3 provides a diagrammatic summary of the area of residence of the participants. This broad demographic data is further broken down in Table 3 to illustrate the rate of survey return by the community service agency from which they originated.

Table 3

Summary of return rate by service provider

	Spiritus	RSLCare
Surveys sent	300	320
Surveys returned		
Useable	98	58
Unusable	9	5
Participation rate	32.76%	18.13%

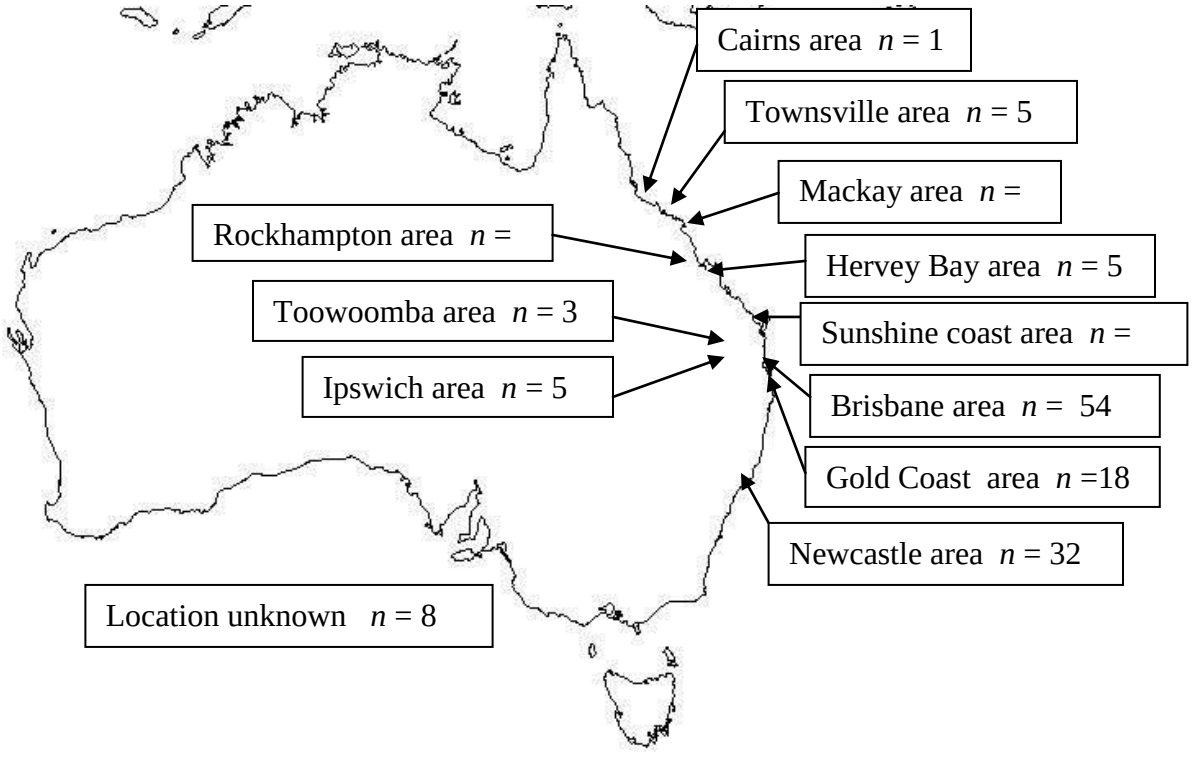

Figure 3 Map of Australia showing return rate by location (*N* = 156)

Table 4 provides a summary of the demographic data of the participants of phase 2, broken down by sex, age group, accommodation type, marital status, living arrangements and geographical classification of the participants.

Table 4

Demographic profile of participants in phase 2

	n	%
Sex		
Male	69	45.4
Female	83	54.6
Age		
65 – 84	106	67.9
85 plus	50	32.1
Accommodation		
house	119	79.3
retirement unit	31	20.7
Marital status		
married	64	41.0
single	3	1.9
divorced	8	5.1
widowed	81	51.9
Living arrangements		
alone	83	53.9
with others	71	46.1

Geographical area of residence		
major city	109	73.6
inner regional	31	20.9
outer regional	8	5.4
remote	0	0
very remote	0	0

Participant data regarding the types of community services accessed by the participants and their satisfaction with the associated costs and satisfaction with support staff are summarised in Tables 5, 6 and 7. A review of the participants' comments on the subject of what could be done to improve the community services follows these tables.

Table 5

Community services

Services received	Yes	No
Home help	136	20
Community nursing	22	134
Meals-on-wheels	19	137
Community transport	19	136
Other	19	137

Table 6

Satisfaction with community services and support staff

	Community services		Support staff	
	n	%	*n*	%
Very satisfied	88	56.4	85	54.5
Satisfied	66	42.3	68	43.6
Dissatisfied	1	0.6	1	0.6
Very dissatisfied	1	0.6	2	1.3

Table 7

Participant satisfaction with cost of community services

Cost	*n*	%
Too high	2	1.3
Appropriate	145	92.9
Too low	9	5.8

6.3.1.1 Demographic Qualitative Responses

Participants were also invited to make qualitative comments on the demographic survey form if they wished. The qualitative responses fell under two broad topic areas. Participants were asked about any volunteer work that they carried out in their community and to make any comments on the way that they felt the community services that they received could be improved. Of the 156 participants surveyed, 48 (31%) responded with comments on the subject of volunteering activities, and 30 (19%) responded with comments about service provision improvements. Comments regarding volunteering activities ranged from holding administrative roles on various committees,

knitting and selling raffle tickets, to being an environmental lobbyist (Appendix T). Participants' comments on the topic of community service improvements mainly focused on two areas: the need for longer service provisions durations and the desire for the same support staff on each visit as a preference. Some participants also suggested that constraints around what services support staff were permitted to perform was frustrating (Appendix U).

6.3.2 Recoding of Variables

The recoding of several demographic variables was necessary to ensure statistical power in several of the sub categories due to very small participant numbers. For the purposes of comparative group statistical analysis and due to the very small numbers of both single and divorced participants, the demographic category of Marital Status was re-coded: 1 = married, and 2 = not married, with the 'not married' category encompassing single, divorced and widowed participants. Again, for the purposes of comparative group statistical analysis, and due to small (or zero) numbers in both inner regional, outer regional and remote and very remote categories, this category was re-coded: 1 = major city, and 2 = regional.

6.3.3 Descriptive Statistics

6.3.3.1 Descriptive Outcome Variable Data

To facilitate a comparison of the outcome predictor characteristics of the phase 2 participants with results in Table 8 it is important to recall that the SF–36v2 is scored 0–100 with higher scores indicating better health status, with a mean of 50 and a standard deviation of 10. Age-grouped PCS and MCS mean scores provide a more relevant

summary of physical and mental health domains for the older participants of this study. Age appropriate means provide a more accurate representation of the PCS and MCS for this study (Saris-Baglama, et al., 2007). They suggest that for populations aged 65–74 a PCS average score of 30.67 is a more accurate measure than the population norm of 43.93. Similarly, for populations aged 65–74, the MCS average score of 49.26 provides a more accurate representation of the older person's health than the normative value of 51.57, which better reflects age-associated health problems. Australian population normative data was available for populations aged 75 and over, but no specific data for those aged 85 and older were available (Hawthorne, et al., 2007).

Table 8

Descriptive outcome variable statistics

Outcome variable	*M*	*SD*
Physical component summary	33.46	9.94
role function	33.60	10.54
role physical	33.70	10.66
body pain	39.19	10.54
general health	41.14	10.24
Mental component summary	46.37	12.62
vitality	43.93	11.00
social function	39.64	13.08
role emotional	37.02	15.09
mental health	47.12	11.54

Note. $N = 156$

6.3.3.2 Descriptive Predictor Variable Statistics

Table 9 presents the statistics of the descriptive predictor results of phase 2 participants on the previously validated psychometric scales and includes the range data to enable a comparison of the characteristics of participants with those reported in previous studies.

Explanatory style scores are comprised of a composite positive and composite negative events score. Composite positive events scores are calculated by adding the scores of each of the three responses for six positive event vignettes and dividing by six, and repeating the process for the negative events. The total explanatory style score is obtained by subtracting the negative composite score from the positive composite score, which can range from 21 (most optimistic) to –21(most pessimistic). Other composite scores are able to be calculated by following this process using health/cognitive items and affiliation items. Isaacowitz and Seligman (2001, 2002) deem the use of the health/cognitive composite score and affiliation composite score best practice in their research.

By contrast, Petersen (1991) notes that the use of the positive events explanatory style and negative events explanatory style composite scores in statistical analyses with other measures produce a more robust result. Positive event and negative event explanatory style composite scores were calculated and utilised in the statistical analysis for this study.

Table 9

Descriptive predictor variable statistics

Predictor variable	*M*	*SD*	Range
Explanatory style	.26	.95	(–21 – 21)
negative events	3.92	.86	(0 – 21)
positive events	4.18	.91	(0 – 21)
Dispositional optimism	15.40	4.60	(0 – 24)
Resilience	67.44	18.01	(0-100)

Note. $N = 156$

6.4 *Statistical Analysis*

Multiple regression analysis was used to explore the relationship between health (PCS and MCS) and the predictor variables: explanatory style, dispositional optimism and resilience. All statistical analyses for this phase of the study were performed using the Statistical Package for the Social Sciences (SPSS) Version 17.0 for Windows (SPSS, 2008). All significance tests were conducted using $p < .05$, and all correlational analysis was two-tailed. An a priori test using G-power (Faul, Erdfelder, Buchner, & Lang, 2009) was conducted to determine the adequacy of the sample size. G*Power 3.1 estimated that to achieve power of .80 and a medium effect size (Cohen's $f^2 = .15$), a sample size of 85 was required to detect a significant model (F (4, 80) = 2.49, $p = .05$). Therefore, with $N = 156$, the study was deemed to be more than adequate for the intent.

With data screening complete, initial analysis of the data, using a Pearson correlation, was undertaken to determine correlations between the predictor variables (explanatory style, dispositional optimism and resilience) and health (PCS and MCS) in

order to determine the importance of each variable in predicting the two levels of the outcome variable of health (Table 10).

6.4.1 Predictor Variable Intercorrelations

Table 10

Correlations between predictor variables

	Explanatory Style	Negative events	Positive events	Dispositional optimism	Resilience
Explanatory Style	1	–.50**	.58**	.17*	.17*
Negative	--	1	.42**	–.11	.00
Positive		--	1	.07	.18*
Dispositional Optimism			--	1	.38**
Resilience			--		1

Note. $N = 156$ *$p < .05$. ,**$p < .01$.

As expected, there were a number of strongly significant correlations between several of the predictor variables. Explanatory style correlated positively with explanatory style positive events, dispositional optimism and resilience. There was also a strong positive correlation between explanatory style positive events and explanatory style negative events. Resilience was also strongly significantly correlated with explanatory style positive events and dispositional optimism. A strong and significant negative correlation was also identified between explanatory style negative events and the full scale explanatory style as would be expected.

6.4.2 Multiple Regression Analysis

A standard multiple regression was used to determine the relative importance of explanatory style (negative events and positive events), dispositional optimism and resilience in predicting the two measures of health. Table 11 presents the parameter estimates for variables predicting physical health (PCS) and mental health (MCS).

Table 11

Summary of Simple Regression Analyses for Variables Predicting Physical Health (Physical Component Summary) and Mental Health (Mental Component Summary)

	Physical health				Mental health			
Variable	*B*	*SE B*	β	sr^2	*B*	*SE B*	β	sr^2
Explanatory Style								
negative	–2.73	1.0	–.24	.05*	–.12	1.19	–.01	.09
positive	.88	.95	.08	.01	–.68	1.12	–.05	.00
Dispositional optimism	.14	.18	.07	.00	.83	.22	.30	.09**
Resilience	.09	.05	.17	.03*	.18	.06	.26	.07**
			R^2 = .094				R^2 = .213	
			Adjusted R^2 = .07				Adjusted R^2 = .192	

Significance for values *$p < .05$, ** $p < .01$

6.4.2.1 Physical Health

Overall, the four-predictor model resulted in a significant degree of prediction, accounting for approximately 10% of the variance in physical health using PCS, F (4, 150) = 3.47, p =.005

A significant negative correlation was found between the explanatory style negative events, t (150) = –2.73, p =.01 and physical health. This negative correlation indicates that a low score in negative explanatory style events would correlate with a high score in physical health. A significant positive correlation was identified between resilience and physical health, t (150) = 1.94, p = .05, indicating that high scores in the resilience variable would correlate with high scores in physical health.

Of the four predictor variables negative explanatory style events and resilience were statistically significant. Explanatory style negative events were the strongest predictor of physical health, accounting for 5% of unique variance whilst resilience accounted for 3% of unique variance.

6.4.2.2 Mental Health

Overall, the four-predictor model resulted in a significantly good degree of prediction, accounting for over 20% of the variance in mental health using MCS, F (4, 150) = 10.15, p =.00. Two of the correlations in this regression model were also significant. A significant positive correlation was found between dispositional optimism, t (150) = 3.84, p = .00) and mental health. This correlation indicates that a high score in dispositional optimism would show a relationship with a high score in mental health. A significant positive correlation was identified between resilience and mental health,

indicating that high scores in the resilience variable would correlate with high scores in mental health.

When considering unique variance, dispositional optimism was the strongest predictor of work performance, accounting for 9% of unique variance. Resilience accounted for 7%.

6.4.3 Moderating Effects

In the second phase of analysis, hierarchical regression analyses were undertaken to determine whether the age, sex or marital status of participants had a moderating effect on the relationship between health and explanatory style, dispositional optimism and resilience. The analysis of sex, age and marital status of the participants is discussed in the following section.

6.4.3.1 Moderation effects of Sex

The sex of participants as the moderator of the relationship between health and all of the significant predictor variables was further investigated using hierarchical regression in SPSS. No significant moderating effect of the relationship of the sex of participants was identified between physical or mental health and any of the predictor variables.. The relationship between physical health and explanatory style negative events, t (150) = –1.02, p = .31, and physical health and resilience, t (150) = .52, p = .61, did not depend on the sex of the participant. Similarly, the relationship between mental health and dispositional optimism, t (150) = –.81, p = .42 and mental health and resilience, t (150) = .81, p = .42 was not reliant on sex of the participants.

6.4.3.2 Moderating effects of Age

The age of participants as a moderating variable in the relationship between health and all of the significant predictor variables was further investigated using hierarchical regression in SPPS. No significant moderating relationship of the effect of the age of participants was identified between physical or mental health and any of the predictor variables. The relationship involving physical health and explanatory style negative events, t (150) = .32, p = .75, and physical health and resilience, t (150) = .82, p = .42, was not reliant on whether the participant belonged to the *young old* or the *old old* age group. The hierarchical regression analysis also revealed no relationship between the mental health of the participants and dispositional optimism, t (150) = 1.50, p = .14 and mental health and resilience t (150) = .23, p = .82, which indicated that the age group to which the participant belonged was not a factor in these relationships.

6.4.3.3 Moderation effects of Marital Status

The marital status of participants as the moderator of the relationship between health and all of the significant predictor variables was further investigated using hierarchical regression in SPSS. The data did not support a significant moderating effect of the relationship of marital status of the participants in the relationship between physical or mental health and any of the predictor variables. The relationship between physical health and explanatory style negative events, t (150) = –.63, p = .53, and physical health and resilience, t (150) = 1.24, p = .22, did not depend on the marital status of the participant. Similarly, the relationship between mental health and dispositional optimism, t (150) = .75, p = .45, and mental health and resilience,

t (150) = –1.14, p = .26, was not reliant on whether the participants were married or not married.

6.5 *Conclusion*

This chapter discussed the analysis of phase 2 data. The discussion began with a description of data screening, including the handling of missing data, data coding, and ensuring data usability by inspection for univariate and multivariate outliers. Once data was ascertained to be suitable for statistical analysis, descriptive statistics regarding demographic variables were examined. Tables presenting various aspects of demographic data were presented to provide a summary of the phase 2 participants' profile. A broad summary of the qualitative responses to the demographic survey questions regarding volunteer work, and comments regarding what participants thought could be done to improve the received community services, was also presented.

Descriptive data about both the outcome and predictor variables was also summarised in tabular form, preceding a statistical analysis of the data using correlation and multiple regression techniques. This was followed by a statistical examination of the relationship between the outcome variable and predictor variables to determine if any moderating effect of age, sex or marital status was present. The next chapter of this dissertation will discuss these phase 2 results in relation to the results of phase 1 and the relevant literature.

Chapter 7. Phase 2 Discussion and Implications

'The closing years of life are like the end of a masquerade party, when the masks are dropped.' *Arthur Schopenhauer*

7.1 *Introduction*

This chapter will discuss the results of phase 2 and the relationship between these findings and the qualitative data from phase 1. Additionally the relevant research findings from previous studies will be considered and discussed in relation to the current project. The findings of this study will be discussed sequentially in terms of the research questions this study sought to answer. A review of the demographic profile of the participants in terms of other research and population norms will be presented in terms of the health of participants. The multiple regression analysis and a discussion of the findings of this analysis will be discussed. The analysis conducted to examine the moderating effects of sex, age and marital status will also be discussed. In order to explain what the findings mean in terms of older adults, the normative data from previous studies with older populations regarding the predictor variables will also be reviewed, differences discussed and reasons for variability posited. Consideration will then be given to the utility of this research to service provision for community-dwelling older adults.

Before any discussion can commence, it is important to make a statement in terms of the research questions posed at the start of this dissertation. To recap, the research questions were as follows:

- Which predictor variables, if any, are of relative importance to the health of older adults living in the community?
- What is the strength, if any, of these predictor variables?
- Do the demographic variables, age, sex or marital status, moderate the relationship between any identified predictor variables and the health of older adults living in the community?
- What are the important factors in maintaining health and quality of life of older Australian's relating to community-based aged-care services as identified by the recipients of those services?

The question of the relative importance to the health of community-dwelling older adults of any of the predictor variables was considered in terms of both physical and mental health. In terms of physical health, explanatory style negative events and resilience were identified as significant factors. The significant contribution of both dispositional optimism and resilience to the mental health of the participants was also identified. The strength of these associations will be discussed in more detail later in this chapter.

It was also interesting to note that no moderating effects of the demographic variables of age, sex or marital status were identified in the relationship between any identified predictor variables and the health of older adults living in the community. Reasons for the limited association of these variables will be posited later in this section.

Finally, the demographic information provided additional important information which was able to provide a more comprehensive understanding of community-dwelling older Australians. The important factors in maintaining the health and quality of life

relating to community-based aged-care services according to the participants of this study were consistently demonstrated to be related to the quality and duration of the received services, volunteering, and social network. Further discussion of the implications of these demographic factors will occur in the following sections.

7.2 *Participant Characteristics*

It is important to examine the characteristics of the participants of this study to ensure that the sample was representative of the older Australian population and that the results can be extrapolated to the broader population of older Australians. Phase 2 participants aged 85 and older made up 32% of the total participants. In the Australian population aged 65 and older, 11% are aged 85 and older (Australian Institute of Health and Welfare, 2007b). As is evident from these statistics, the phase 2 participants aged over 85 formed a much higher ratio of *young old* to *old old*; (2:1) than the population ratios (*young old*: *old old*; 7:1). The phase 2 participant *young old* made up 68% of the study population, in comparison to the *young old* (those aged 65–84) in the Australian population, who make up 88%. This somewhat skewed population needs to be considered in interpretation of data. Although the age of the participants overall was older than Australian population norms, male-to-female ratios within both age groups in phase 2 were similar to the population norms (Australian Institute of Health and Welfare, 2007b). Similarly, the mean age of phase 1 participants (82 years) is also older than the Australian population mean and therefore needs to be considered in interpretability of the phase 1 data, with youngest of the participants being aged 72.

The marital status of the participants of this study was slightly different to population statistic data, with 62% of males in the current study being married compared

to 72% in the older Australian population. Only 24% of the female phase 2 participants were married, compared to 43% in the older Australian population. The lower percentage of married females in the study population may be accounted for by the higher life expectancy of females in comparison to males. Due to the older age group of the participants, more women were likely to be widowed than males of the same age group (Australian Bureau of Statistics, 2001).

Similarly, large differences in older adults living alone were observed between Australian Bureau of Statistics (ABS) older adult data (2001) and the phase 2 participants, with ABS indicating that 31% of older Australians lived alone compared to 54% identified in the phase 2 participant cohort. According to ABS (2001) a greater proportion of women live alone (40%) than men (21%). The demographic profile of phase 2 participants reflected this population norm, with twice as many women living alone as men. The higher rate of phase 2 participants living alone compared to population norms may be due to all participants being in receipt of a community-based aged-care service which possibly enabled the participant to live alone in the community for a longer period than they would have without that support.

7.2.1 Volunteering and Geographical Area of Residence

The likely advantages that community-based aged-care services provide to the recipients are again demonstrated in the volunteering data gleaned from phase 2 participants. For example, 31% indicated that they participated in some type of unpaid voluntary work compared to 28% of older persons in the broader older population. Of the phase 2 sample, 60% who performed volunteer work were women, in comparison to 36% of the ABS population data (2001). As speculated previously, the positive

influence of participants being in receipt of community-based aged-care services must be considered as a factor in facilitating such a high level of valuable community participation. The positive influences of volunteering certainly contribute to social networks of older adults and have been shown to have a strong influence on psychological wellbeing (Greenfield & Marks, 2004).

This finding is an important factor in supporting the need for additional community support services for older adults, and the potential for not only increasing social networks associated with these activities but also to increases in optimism and resilience through continued contribution to their community (Lubben & Gironda, 2003, 2004).

The geographic area of residence of the majority of participants of this study in city, inner regional and outer regional locations is consistent with Australian population census data for older adults (Australian Institute of Health and Welfare, 2007b).

The higher than average proportion of older adults living alone in the community when compared to population data (Australian Institute of Health and Welfare, 2007b), is likely to contribute to significant variability in a number of the variables in phase 2 of this study. Differences to population data in the demographics of the participants in relation to age and living arrangements might suggest that participant responses cannot be considered broadly representative of all older Australians, and therefore the generalisability of this research cannot be established beyond the data set.

Consequently, the data analysis needs to be viewed with caution. However, the data gleaned from this study will be useful in making assumptions about increasing numbers of Australians aged 85, living alone in the community and receiving

community-based aged-care services. This data is also an important indicator in support of such services and in factors that contribute to the quality of lives of older adults. Additionally, the financial savings to the wider community by prolonging their ability to live at home or avoiding the need for costly residential aged care is an important factor. The qualitative data from phase 1 participants and the uptake of community-based aged-care services of phase 2 participants further reinforces the importance of these services.

7.3 *Uptake of Community-Based Aged-Care Services*

The utilisation of more than one type of community-based aged-care service by phase 2 participants is an important finding as it identifies the need for package-type services such as Community Aged Care Package (CACP), Extended Aged Care at Home (EACH) and Extended Aged Care at Home – Dementia (EACH-D). Package-type services such as those listed would certainly go some way to address the issues identified by participants for the need for increased hours and consistent support staff for individual clients. The satisfaction level of phase 2 participants with community services and support staff was indicative of the value of both the services and the support staff who perform the services.

Almost all phase 2 participants believed that the community services they received impacted either positively or very positively on their health, showing further support for the value they placed on these services. Similarly, the satisfaction of participants with the costs associated with receiving services was further indication of the value placed on this care, with 6% of participants indicating that they would have been prepared to pay more.

Although most costs associated with the provision of community-based aged-care services are borne by the Australian state and federal governments, the costs associated with older adults accessing many of these services needs to be considered. The clear value to their health that the participants believed resulted from the received services should not be overlooked. With the review of the impact of the demographic factors of the participants on health complete, a discussion about the impact of the predictor variables on health can now be contemplated.

7.4 *Predictor Variable Impact on Health*

Because of the higher than population proportion of *old old* participants in this study, the impact of each predictor variable in relation to health needs closer scrutiny to gain a better understanding of the health and psychological profile of this group of people. From the multiple regression analysis of the phase 2 data, the unique contribution of each of the statistically significant outcome variables in relation to both physical and mental health needs deeper reflection to consider what their contribution means in real terms, particularly in light of past research. Explanatory style negative events and resilience were both shown to have made a significant unique contribution to physical health; whereas dispositional optimism and resilience were identified as making a significant contribution to the mental health of phase 2 participants.

7.4.1 Physical Health

Both explanatory style negative events and resilience were identified as making a significant and unique contribution to physical health. Although the contribution to physical health by these two predictor variables is not large, they are both statistically

significant. To better understand the unique contribution of explanatory style negative events to physical health; it is important to consider that the unstandardised coefficient *B* has a negative value which demonstrates the negative impact of explanatory style negative events or pessimism on physical health. This implies that participants viewed negative events that occurred in their lives as having a significant negative impact on their physical health.

The link between pessimism and poor health and poorer health maintenance behaviours has been identified in younger populations (Lin & Petersen, 1990). However the numerous composite scores able to be calculated from the explanatory style measure and use in the analysis in many studies (Isaacowitz & Seligman, 2001, 2002) examining explanatory style, health and other measures have produced some ambiguous results. This makes a direct evaluation in relation to these measures and health difficult. Despite differences in the way that composite scores are calculated, pessimism in any form would appear to consistently have a negative impact on health, particularly physical health and individual health management. Isaacowitz (2005) suggests that the impact of both optimism and pessimism in relation to health in older adults may require different consideration and certainly needs additional research to clarify current ambiguities in results between studies. Isaacowitz (2005) supports the view that additional research in this domain is required to attempt to unpack any changes in well-being in older adults. He also notes that large sample sizes would not only provide adequate statistical power required for the use of a multi-level analysis in explanatory style, but would also allow for scrutiny of any moderating affects of age.

The results regarding resilience were much more straightforward. Resilience was identified as making a unique contribution to physical health. Although not a large contributor, it was statistically significant. The role of the contribution of resilience in physical health warrants further consideration.

The relatively low unique variance able to be attributed to explanatory style negative events and resilience had almost as much shared variance as unique variance, suggesting considerable overlap in the underlying constructs of explanatory style and resilience. Less robust findings make it problematic to postulate about the impact of shared variance due to overlap in underlying constructs.

Despite the small effect size in relation to physical health, it is interesting to postulate about any overlap in underlying constructs of explanatory style and resilience, although the absence of any significant correlation between these two variables suggests that it is unlikely. There has been no other research conducted which has used the two measures with any populations to enable meaningful comparisons with the current study data.

7.4.2 Mental Health

The contribution of resilience was also a consideration in mental health, with resilience making a much stronger statistically significant unique contribution to the mental health of the phase 2 participants than it did in relation to physical health. Dispositional optimism was also identified as making a unique and statistically significant contribution to mental health and, in combination with resilience, contributed to the unique variance in mental health scores. The strong correlation identified between dispositional optimism and resilience in relation to both mental and physical health

warrants further consideration to illuminate the possibility of overlap in the underlying constructs, which may be part of the developmental psychological profile of older adults.

The shared variance between resilience and dispositional optimism also suggests some common elements in both constructs which both contribute to mental health in older adults. Factor analyses have been used in previous studies to determine that internal individual coping capacity is a common construct to the measures of resilience and dispositional optimism measures used for phase 2. This may explain correlations identified between the two measures in this study and the study by Lamond et al.(2009). In their meta-analytic review, Nes and Segerstrom (2006) examine coping and problem solving capacity and identify them as central to the construct of dispositional optimism. Different operationalisations further confound attempts to disentangle the constructs behind these two concepts; however, individual problem-solving capacity would appear to be a common thread. Further research that unpacks these highly interrelated concepts would provide a deeper understanding.

Further research comparing younger and older adults would also provide an interesting insight into any changes in the older adults capacity to cope with changes, and problem solve as they age, particularly in the *old old.* It is certainly worthwhile to consider how problem-solving approaches may change and possibly become maladaptive in older adults, as suggested by Isaacowitz and Seligman (2002), due to the nature of the problems they face from cognitive over-taxing, uncontrollable circumstances and limited emotional resources.

7.4.3 Interrelationships Between Predictor Variables

To further understand the possibility of overlap between underlying constructs that make up the predictor variables, it is important to have a deeper look at the interrelationships between them in older populations. Historically, the participants of this study would certainly have been strongly influenced by the impacts of WWII. This may mean that their psychological profile, and the interrelationships between some of the predictor variables, may be unique to that particular age cohort.

For example, the relationship between dispositional optimism and explanatory style has created much discussion in the literature as, although they are both considered to be measures of optimism, they are measuring different underlying constructs and are generally weakly correlated (Schueller & Seligman, 2008). The manner in which explanatory style and dispositional optimism are defined clarifies the understanding of the conceptual differences between these two constructs.

Explanatory style considers the way in which people make their judgements about current events based on what has happened in the past. By contrast dispositional optimism emphasises an individual's expectation about the future. Scheier and Carver (1992) note that correlations between dispositional optimism and explanatory style are typically weak, which is consistent with the correlation between these two variables in this study, which was significant but unsubstantial. Lamond et al. (2009) also calculated that in the population that made up their study, measures of dispositional optimism correlated positively with resilience and produced a similar correlation with the current study. Lamond et al. (2009) have also noted that resilience was weakly negatively

correlated to chronological age, which may account for the slightly lower correlation coefficient between the participants in their study and those in the current study.

A statistically significant robust positive correlation between the full scale explanatory style and explanatory style positive events, and a similarly strong and significant negative relationship between the full scale score and explanatory style negative events was the expected outcome of the correlational analysis. A strong statistical significant relationship between the negative and positive explanatory style scores was identified, as anticipated.

Further statistically significant relationships were identified between resilience and full scale explanatory style and explanatory positive events. No previous studies were found that have made comparisons between explanatory style and resilience in older adults. Lamond et al. (2009) suggest in their discussion of their study with older adults that there may be developmental differences in resilience in older adults which require further research. The weak but still significant correlations with explanatory style positive events and explanatory style, and a similar strength of relationship between explanatory style and dispositional optimism in the data of the phase 2 participants, suggests that there are certainly positive attitudinal factors in the construct of resilience of older adults.

Lamond et al. (2009) further posit that although they found a positive relationship between resilience and physical health, and a similar but weaker relationship with mental health, resilience is not only seen in the healthiest older adults. The results of the current study would certainly support such a proposal, with the mental and physical health of the cohort being significantly worse than Australian normative data, but still

identifying similar levels of resilience as identified by Lamond et al. (2009). Further research into resilience in older adults is warranted, such as the longitudinal study suggested by Lamond et al. (2009) to investigate resilience and health in older adults. They also identify the benefits of increasing resilience by means of problem solving task interventions, with the idea of encouraging secondary gains in physical and mental health in older adults.

7.4.4 Moderating Effects

The small effect size in the statistically significant predictor variables in this study in relation to health may have also contributed to the inability to detect any moderating effects of age, sex or marital status. This data will still provide some interesting additions to knowledge from previous studies, and additional insights into some relationships between predictor variables and health in older adults, as well as some valuable starting points for future research.

7.5 *Other Considerations*

To enable a better understanding of the findings of this study, particularly in relation to a population skewed heavily toward the *old old*, a deeper analysis of these findings in relation to other studies is necessary to attempt to explain ambiguities. These findings provide a valuable insight into the health and psychological profile of the *old old* and the best means for meeting their needs to enable to them to live in their own communities for as long as possible.

7.5.1 Health

Numerous Australian government (Australian Institute of Health and Welfare, 2006, 2007b, 2008) and other publications (Cleary & Howell, 2006) note that the health of older adults deteriorates with increasing age, so it is safe to assume that the health of the many of participants in this study, who are older than the population for whom normative data is available, is likely to be worse than that of their younger counterparts.

Cleary and Howell (2006) assert that health-related quality of life, as measured by the SF–36v2, can be used as a measure of successful ageing. This sentiment was strongly supported by the participants of phase 1, who clearly identified that the quality of their life was very much determined by their health and their ability to continue to live in their own community. Because of the broad nature of the measure, the SF–36v2 provides a comprehensive mental and physical summary of respondents. The extensive use of this measure in various populations makes it an ideal instrument to use with older populations to identify functional capacity and the ability of older adults to engage in their community. No normative data was available for specific populations aged 75 and over for the SF–36v2, although some data for its predecessor exists for populations over 85 (Walters, Munro, & Brazier, 2001).

Due to the changing health needs of older adults it is important to consider the use of age-appropriate means for both mental and physical health (Saris-Baglama, et al., 2007). The normative data of Saris-Baglama et al. (2007) for the SF–36v2 has traditionally been considered to be the international standard; however, Hawthorne, Osborne, Taylor, & Sansoni (2007) recommend caution in the use of the Saris-Baglama et al. (2007) data with Australian populations, and note that there are important

differences between the US and the Australian population normative data. They posit that this may be due to population differences in cultural perceptions of their understanding of health. They also note that the Australian population has important differences in both health expectations and the impact of Australia's unique population make-up, which includes a number of different cultural groups (Hawthorne, et al., 2007). The normative data used for comparison and subsequent discussion of the phase 2 data was therefore the Australian normative data.

The PCS mean of the phase 2 participants of 33.46 (*SD* = 9.94) is significantly lower than the 75 years and over Australian population mean 40.46 (*SD* = 12.66) identified by Hawthorne et al.(2007), $t(427) = 5.94$, $p = .00$. A significant difference, again lower, was identified between the MCS Australian normative data 53.29 (*SD* = 8.71) (Hawthorne, et al., 2007) and that of the phase 2 participant data 46.37 (*SD* = 12.62), $t(427) = 6.69$, $p = .00$. Many studies have included data from participants up to 75 years (Cleary & Howell, 2006; Saris-Baglama, et al., 2007); however, the absence of any

SF–36v2 normative data for populations 85 years and over makes comparisons with the current study data challenging. Phase 2 participant data therefore identifies that the participants of this study had significantly worse physical and mental health than most Australians aged 75 and older.

In their study of older rural Americans, Cleary and Howell (2006) note that health scores in older people generally decline with increasing age. Walters et al. (2001) also note that in an aged population there are likely to be steady health declines which are much more rapid in physical health domains. They also assert that mental health is much

more stable even in very old populations. These trends are reflected by Hawthorne et al. (2007) who note that although physical health declines with age, mental health is better in the youngest and the oldest people in the population, creating a U-shaped path. It may therefore be expected that the mental health of the participants of this study would be better than Australian population normative data; however, this was not the case.

It must be considered that the phase 2 participants were all in receipt of at least one community-based aged-care service, and were therefore likely to have either functional physical health or mental health problems which had necessitated them to seek community support services, although those people with dementia or with an RCS rating of high care were excluded from the study to avoid confounds associated with their need for higher levels of care. Therefore this sample may not be representative of the broader Australian older population.

Although there were statistically significant differences identified in all sub scores of the SF–36v2 in both physical and mental health between Australian normative data (Hawthorne, et al., 2007) and the study participant data, two of the sub scores in both physical and mental health were clearly much lower than population means. In physical health, 'role physical' (a measure of problems with activities of daily living or work due to physical health problems) and 'bodily pain' (a measure of severe and/or limiting pain experienced by the individual) were considerably lower than the Australian normative data (Hawthorne, et al., 2007), $t = 74.6$ (427), $p = .00$ and $t = 8.41$(427), $p = .00$ respectively, indicating a large and statistically significant difference between the normative data and study population means. Similar large variations from Australian

population normative data (Hawthorne, et al., 2007) were identified in mental health sub scores of 'social functioning', and 'role emotional', $t = 6.57(427)$, $p = .00$ and $t = 11.3(427)$, $p = .00$ respectively. The sub score of 'social functioning' measures regular or extreme levels of interference with participant's ability to engage in normal social activities due to either physical or emotional health problems, while 'role emotional' is identified as being a measure of similarly restrictive problems with activities of daily living or work due to emotional health challenges (Saris-Baglama, et al., 2007).

This data provides clear support of identified deficits in these areas which are consistent with the need for the community services these older adults are currently receiving. Further research into the use of SF–36v2 sub scores as an indicator for the need for specific community-based aged-care services would be useful in targeting specific and appropriate strategies for support for older adults living in the community. As there is no research that provides a health profile of older adults, by age and differentiated by receipt or non receipt of community-based aged-care services, it is not possible to draw conclusions about this. This is certainly an area worthy of future research to examine the health implications of the provision of community-based aged-care services. Such a study should include an aged-matched sample of those who are not receiving such services.

7.5.2 Predictor Variables

To provide a clear picture of physical and mental health of older adults, a deeper scrutiny of each predictor variable is important. The predictors in the current study: explanatory style, dispositional optimism and resilience, have been used in a number of

studies examining the impact of these variables on health (Isaacowitz, 2005; Jackson, Sellers, & Petersen, 2002; Lamond, et al., 2009; Lin & Petersen, 1990; Mayer & Cummins, 2001; Montross, et al., 2006; Scheier & Carver, 1985, 1987, 1992; Smith, et al., 2004; Steptoe, et al., 2006), and on depression (Dobson & Dozois, 2008; Isaacowitz & Seligman, 2001, 2002; Scheier & Carver, 1992), many of which have included older populations or specifically examined the variables in relation to older adults. Variability in the type of populations studied, the manner in which the various measures were calculated, and the geographical location of the participants; all provide a rich context in which to enable comparison with the current study data.

7.5.2.1 Explanatory Style

Isaacowitz and Seligman (2002) define those people with pessimistic explanatory style as individuals who make internal, stable and global explanation of negative life events. They further note that in younger people pessimistic explanatory style is predictive of depressive symptoms; however, the reverse is true in older adults. They suggest that in older adults, high levels of optimism in those who had experienced stressful life events are due to shifts in adaptability in cognitive thinking because of the nature of those stressors, e.g. death of a spouse or loss of functional ability.

Many of the other studies conducted with older adults using explanatory style have calculated a variety of sub-scores in an attempt to tease out some ambiguity in the results of previous studies. With the relatively small number of participants in phase 2 of this study, using multiple levels of analysis, although a consideration, was not possible due to the moderate effect size and considerations of maintaining statistical power. The many different composite scores used in a number of other studies also make direct

comparisons with the current study data problematic. The phase 2 participant explanatory style positive events score and explanatory style negative events scores in relation to the scale range are reflective of a slightly more optimistic than pessimistic cohort.

The use of the two composite scores that is likely to produce the most robust statistical performance in this study in considering optimism and pessimism as broader concepts in older adults unfortunately results in a position where there are no age normative data for comparison with other studies of community-dwelling older adults. For that reason affiliation explanatory style and health cognition explanatory style composite scores used by Isaacowitz & Seligman (2002) were calculated to enable a more meaningful comparison with the data of the current study.

The affiliation explanatory style score calculates the mean of all affiliation items that incorporates negative and positive items about interpersonal relationships. When the current study data, $M = 6.11$ ($SD = 3.75$), was compared to the data from Isaacowitz & Seligman (2002), $M = 5.81$ ($SD = 3.84$), there was no statistically significant difference, $t(247) = .61$, $p = .5$. Conversely, health and cognition explanatory style composite scores calculated from negative and positive items regarding health events means, did demonstrate a significant difference between current study, $M = 6.11$ ($SD = 3.75$), and Isaacowitz & Seligman (2002) scores, $M = 1.89$ ($SD = 3.38$), $t(247) = 7.42$, $p = .00$.

The poor health of the phase 2 participants is a stark contrast to the markedly higher scores in the health and cognition domain in the Isaacowitz & Seligman (2002) study data. The population investigated by Isaacowitz & Seligman (2002) had a broader age range of 60-99 and were not receiving any assistive services, which may explain the

lower health and cognition explanatory style scores in their study. Further research, as identified previously, which allows a comparison between those older adults receiving community-based aged-care services and those who are not, would assist in identifying if the received community services provide significant protection in the health cognitive explanatory style domain.

In their discussion of the frequently ambiguous results in explanatory style, dispositional optimism and health with older adults, Isaacowitz & Seligman (2002) posit that higher scores in the explanatory style domain might be more predictive of depression in older adults. Certainly the lower mental health scores seen in the phase 2 participant scores in this study may provide support for such a hypothesis. They also note that dispositional optimism tends to reflect better adaptability and that explanatory style is a reflection of an attempt to fix problems in their environment. This view would provide support of the possible positive impact of community-based aged-care services in the daily lives of the participants of the current study which are reflected in the health cognition explanatory style scores.

The large means in the health/cognition explanatory style in this study relative to Isaacowitz and Seligman's (2002) study, despite a very similar affiliation explanatory style mean, suggest that there is something about the phase 2 participants which is very different to Isaacowitz and Seligman's population. The poor physical and mental health of the phase 2 participants identified by SF–36v2 scores and higher health/cognition explanatory style scores suggest that their external support (such as community-based aged-care services) provided significant health/cognitive protection. This additional support may be responsible for the phase 2 participants being more optimistic about

their health and cognitive functioning. The maladaptive health/cognitive explanatory style identified by Isaacowitz and Seligman (2002) relative to affiliation explanatory style scores in their study may be a reflection of a loss of optimism in their participants in relation to their health, in the absence of support.

7.5.2.2 Dispositional Optimism

The challenges of analysing relationships in the current study data in relation to dispositional optimism with other studies was also confounded by the way in which other authors have analysed the data. Scheier and Carver (1985) define dispositional optimism as the expectation by an individual that there will be an abundance of good events in the future and very few bad events, consistent with an overall generally positive future outlook. Many other authors have identified two distinct factors from a factor analysis of the four positively and four negatively worded items of the LOT–R (Robinson-Whelan, et al., 1997; Scheier & Carver, 1985, 1987, 1992; Scheier, et al., 1994) and have calculated two scores: dispositional optimism and dispositional pessimism, in their studies with older adults.

Some authors advocate the use of the full scale dispositional optimism score with studies of older adults (Smith, et al., 2004; Steptoe, et al., 2006) while others recommend the use of the two distinct measures. Other researchers such as Maher and Cummins (2001) developed their own version of a one-factor dispositional optimism score by rewording negative items so that all eight items were positive items. Although this produces a single dispositional optimism score it makes comparison to the current study data problematic in analysis.

In their sample of older women, Smith et al. (2004) reported a dispositional optimism mean of 15.6 (*SD* = 3.5). Similarities in the mean of the full scale dispositional optimism score are consistent with a study of older adults by Steptoe, et al. (2006) with a mean of 16.0 (*SD* = 4.3). The mean scores of the participants of the current study 15.4 (*SD* = 6.58) are consistent with the results of past studies and not significantly different to the means in the studies of Smith et al. (2004) and Steptoe et al. (2006) , $t(6493) = .70$, $p = .5$ and, $t(282) = 1.13$, $p = .25$ respectively. These scores, in light of poorer health scores, may also reflect the protective influence of community-based aged-care services. The ability of these participants to look forward positively despite significant health challenges is indicative of an external factor, which may be the receipt of such services.

7.5.2.3 Resilience

Resilience has also been shown to be an important factor in successful ageing, and is broadly described as the capacity of the older adult to adapt positively to the challenges of life. The current study mean of 67.44 (*SD* = 18.1) for resilience was statistically significantly lower, $t(1549) = 7.20p = .00$ than the mean scores of older adults in a cohort in an American study of community-dwelling older women using the same measure of resilience, the Connor-Davidson Resilience Scale (Lamond, et al., 2009). Lamond et al. (2009) identified a mean score of 75.7 (*SD* = 13.0) in their population with a mean age of 73 years, again somewhat younger than those in the current study.

The study by Montross et al. (2006) investigated the relationship between a number of variables which are believed to be part of successful aging in community-

dwelling older adults, including resilience as measured by CD–RISC. They found similar means 72.6 (*SD* = 16.7), *t*(179) = 1.34, *p* = .25 in the participants in one group who were a closer match age-wise to the current study with a mean age of 83.7 years (*SD* = 6.5). Although the evidence from the Lamond et al. (2009) and Montross et al. (2006) provide some support for the lower resilience scores in the phase 2 participants due to their age, further research is needed.

7.5.3 Possible Strategies

The evidence suggests that in those adults aged over 85, adaptability becomes increasingly more difficult, particularly in populations with increasing physical and mental health problems such as those identified in the current study. This view is supported by Karel, 1997, as cited in Lamond et al. 2009, who notes that the chronicity and uncontrollable nature of the challenges in older adults such as bereavement and health problems are likely to create a coping style that is marked by acceptance and tolerance rather than active problem-solving strategies seen in younger people.

Certainly the health challenges creating the need for community-based aged-care services in the phase 2 participants would be likely to produce an environment that might describe the uncontrollable nature of events to which Karel (1997), as cited in Lamond et al. 2009, refers. Another factor that does require consideration in the adaptability of the cohort in this study is the long term impact of WWII on the majority of participants who would have been in their mid-20s when war was declared.

Park, Mills-Baxter and Fenster (2005) note that there is very little research on the impact of the ability to cope and adjust following a traumatic event such as war, but posit that there appears to be the capacity for positive growth even in older people. They

also observe that it is difficult for people to reach older age without having survived traumatic or very stressful challenges in their lives (Park, et al., 2005). Older Australians would have been strongly influenced by many hardships as a result of WWII and events such as the Great Depression, which would have presented many challenges in their lives. These challenging events would certainly have provided many past experiences on which they could draw in their current situation.

Richardson (2002) notes that is important to recognise the value of increasing resilience, particularly in older people, but that to gain the benefits of the protective factors of increased resilience, skills such as the use of meditation, prayer, yoga or other alternative methods need to be utilised. Teaching the skills of these methods, which may reduce the need for less reliance on medication and external supports (Richardson, 2002), could be integrated into existing programs such as day respite programs or into activity programs within retirement villages. Providing the opportunity for older adults to develop higher levels of self-efficacy and increased resilience is worthy of consideration in the development of programs for older adults, in keeping with the salutogenic paradigm described by Antonovsky (1987) in promoting a focus on wellness and prevention as opposed to a disease model.

Ryff et al. (1998) acknowledge the importance of the need for a sense of fulfilment in the older person such as those described, but also note that volunteering or purposeful community engaging activities provide older adults with a sense of purpose and engender an environment for personal growth. The integration of meaningful activities into existing programs would provide the vehicle for increasing personal growth, including levels of resilience and feelings of being useful. Such activities may

also provide a worthwhile addition to many existing passive activities that certainly provide entertainment and diversion in programs designed for older adults.

7.5.4 Implications for Community-Based Aged-Care Services

The deeper analysis of the outcome and predictor variables in relation to health pose some interesting discussions and directions for policy makers and community-based aged-care service providers. The apparent mental health support benefits for recipients of community-based aged-care services are an important finding of this study.

The importance to older adults of living in their community for as long as possible, with the appropriate level and duration of support services, is strongly identified by participants in both phases of this study. The literature strongly identifies the need for new ideas and innovative approaches to community service provision in this growing population. The development in this sector may require a different or attenuated paradigm in service delivery in this cohort of people. The vast financial costs associated with the provision of residential aged care needs to be a consideration in future planning to avoid older adults moving to residential aged care facilities earlier than either desired or necessary. The costs of community-based aged-care services in various forms need to be weighed against not only the financial costs associated with residential aged care but also the quality of life consideration for older adults and the rewards to the community of preserving older adults' involvement. This will only happen with the provision of both an adequate quality and quantity of community-based aged-care services.

The Department of Health and Ageing (DOHA) acknowledges both the urgency and need for appropriate and timely community care. It notes that 'significant challenge

for the aged care industry is continuing to ensure that it meets the needs of care recipients, maintains sustainability and is as efficient as possible' (Department of Health and Ageing, 2010c). In recognising the challenges ahead and acknowledging that the population of older adults in Australia will double from approximately 2 million in 2010 to 4 million in less than 20 years, DOHA states:

> …. the Australian Government aims to ensure that older people receive a choice of high quality, accessible and affordable care, and that carers get the support they need to look after frail older people living at home. The Government also aims to encourage older people to live active and independent lives (Department of Health and Ageing, 2010c).

With the current system failing to adequately meet this self-imposed criterion, due to insufficient funding or services, a new or altered paradigm and/or additional financial resources needs to be realised. The protective impacts of community-based aged-care services on health and quality of life of the older adults in this study is an important consideration. Community-based aged-care packages are increasing in number (Department of Health and Ageing, 2010a) and the availability and access to these services has increased considerably during the past few years. Evidence such as the findings of this study needs be taken into consideration by policy makers. Deliberation needs to occur regarding not only increasing these services but also for the development of other more flexible community-based aged-care packages. Flexible services are required that have the capacity to transform from services which provide lower levels of in-home support into more comprehensive services as the older persons' needs change**.** This type of built-in flexibility would provide not only reassurance for carers and the

older person receiving the care, but provide much better continuity and a better quality of care identified by participants as a gap in service delivery.

7.6 *Conclusion*

Although some of the data derived from this study raises questions about possible conceptual overlap between the predictor variables and the subsequent theoretical implications, the data provides an interesting perspective into the psychological profile of older adults, particularly in the *old old* population. This research has identified a number of areas of interest and concern in relation to the problem solving, adaptability and coping capacity of the *old old* living in the community with minimal support services.

Most importantly this research provides conclusive evidence of the importance of community-based aged-care services to older Australians. Although more research is needed to provide additional data, particularly to look at health differences between those who receive support and those who do not, this project provides important support for continuing and additional community-based aged-care services. The final chapter in this dissertation presents the overall conclusions reached in this study and identifies limitations.

Chapter 8: Conclusion and Limitations

'To keep the heart unwrinkled, to be hopeful, kindly, cheerful, reverent: that is to triumph over old age.' *Thomas B. Aldrich*

8.1 *Introduction*

The final chapter of this dissertation presents a general conclusion regarding the major findings and limitations of this research. Recommendations for future research are summarised and include a summary regarding survey instrument use and other research design issues. Additionally, suggestions for future research that may add to existing knowledge of the psychological factors impacting on the health of older Australians will be reviewed. This research enhances existing knowledge of the broader understanding of older adults and provides a strong case for policy makers in continuing to develop community-based aged-care services. The findings of this research provides suggestions for enhancing existing community service provision for older adults and provide the impetus for enhancing existing aged-care programs.

8.2 *Important Findings*

The mixed-method design of this study incorporating both qualitative and quantitative methodologies has resulted in the depth of the authentic narratives of the phase 1 participants backed up by the strength of phase 2 empirical evidence. The depth of understanding provided by phase 1 participants in managing their health and living in their own home with community-based aged-care services presented not only a rich chronicle of their reality, but also a direction to the relevant areas to research in phase 2.

The analysis of data in both phases of this study has produced knowledge of interest to all stakeholders in the provision and utilisation of community-based aged-care services. Phase 2 identified trends in both physical and mental health not previously identified in the oldest citizens. Assertions that while physical health continues to decline and there is relative stability in mental health were not apparent from the data in this study (Cleary & Howell, 2006; Hawthorne, et al., 2007). The findings of this study suggest that this may not be the case in the *old old* age group. The poorer health identified in both the physical and mental health of the phase 2 participants is inconsistent with this previously identified pattern in older adults and identifies an urgent need for additional research into the health of our oldest citizens living in the community.

This previously unidentified pattern in older adults, in conjunction with clear and the possibly protective benefits of community-based aged-care services, has also identified an interesting relative elevation of health/cognitive explanatory style scores indicative of optimism in relation to their health and cognition, despite poor mental and physical health. Additionally, dispositional optimism levels similar to those found in other studies (Smith, et al., 2004; Steptoe, et al., 2006) suggest protective factors in their environment, which are likely to be from the community-based aged-care services, again despite very poor overall health. Lower resilience identified in the phase 2 participants, relative to one other similar study although in a slightly younger population (Lamond, et al., 2009), and similarly low resilience in a closer to age-matched population (Montross, et al., 2006) provides support for Karel, 1997 (as cited in Lamond et al., 2009) who also suggest that there are differences in adaptability in the *old old.*

The identification of the unique contribution that explanatory style negative events makes to physical health and dispositional optimism makes to mental health, and that resilience uniquely contributes to both physical and mental health, are important findings in understanding the complexities of the psychological and health profiles of older adults.

These findings also provide strong support for the addition of programs that enhance adaptability in older adults into existing programs because of their clearly identified contribution to health. Developing a deeper understanding of the psyche of older adults is vital and further research is not only necessary but needs to become a pressing priority in supporting older adults to live as long as possible in their own communities.

8.3 *Research Recommendations*

The need is identified for a longitudinal study that incorporates those older adults living in the community and allows for a comparison of those receiving community based aged-care services and those who do not. A sample of sufficient size to enable a deeper analysis of the predictor variables would be valuable to scrutinise these concepts and their interrelationship in older adults. Consideration for the other factors identified as important to older adults, such as social network and spirituality would also add to such a project in understanding this growing population.

A large sample size would also allow for further examination of age, marital status and sex as possible moderating variables in the health of older adults.

8.3.1 Community-Based Aged-Care Services

Perhaps the most useful data to come out of either phase of this study is for the future planning of aged-care community services. It is clear from the phase 2 data that the health and quality of life of older adults is enhanced by their ability to remain in their own home in their own community for as long as possible. This sentiment is echoed by all of the participants of phase 1 of this study. All participants of phase 1 and those who provided comments in phase 2 all recognised their need for continuing support in order to remain in their own home within their own community. While the importance of social support networks is also well recognised (Lubben & Gironda, 2004), participants also recognised the need for physical help and emotional reassurance provided by either extended family or community-based aged-care services. With the reliance on extended family members either not possible or not practical in long-term caring situations, dependence on community-based aged-care services are likely.

With current demands on aged-care community services exceeding available services, many changes to aged-care services need to occur. These include increasing the capacity of community-based aged-care service providers to be able to offer support services to many additional older adults in need in the community. Additionally, community-based aged-care service providers need to be mindful of the requirement for not only longer durations of service provision, but also ensuring the same support staff are available wherever possible. Participants from both phases of the study made clear assertions that their quality of life would be greatly enhanced by these two changes. The importance of service provision being a vital part of the older adult's social network, due to the protective influence that it offers, is also an area that requires more research.

8.4 *Study Limitations*

Due to of the higher proportion of phase 2 participants aged over 85 years than in the Australian population over 65 years of age, the data and subsequent analysis will need to be viewed with this in mind, and extrapolation of findings to those in younger age groups may need to be viewed with caution. Despite the skew towards the *old old* age group in the current study population, this study has presented some compelling insights into the psychological profile of the growing numbers of people in this cohort.

The relatively small sample size and the cross-sectional nature of the sample also created limitations in the level of analysis that could be performed without losing statistical power. The ability to calculate additional levels of analysis, particularly in relation to explanatory style, would have provided the capacity for analyses in relation to additional composite scores. This may have provided a more comprehensive analysis of the data and greater clarity of interrelationships between the predictor variables themselves and between the predictor variables and the outcome variable.

Making the choice to analyse explanatory style in a manner traditionally not used in research with older adults, although originally recommended by one of the authors of the measure (Petersen, 1991), has also created some limitations in statistical analyses, although the decision was grounded in its capacity to provide more practically useful and robust outputs.

The absence of an age-matched sample not receiving community-based age-care services also makes comparisons within the broader older population difficult, but the identification of all of these issues offers insight and suggestions for future research projects. Additionally, it must be recognised that due to the limited unique variance

detected in both the physical and mental health of the phase 2 participants, that there are likely to be other factors that also contribute to the health of older adults that still require investigation. The factors that were identified in phase 1, which were not included in phase 2, such as spirituality, social network and volunteering, would certainly be worthy of further research to investigate their unique contribution to health in older populations.

The impact of community-based aged-care services may also be one of these factors and a much deeper analysis of this relationship is required, in addition to other variables which interplay in the complex psychological profile of community-dwelling older adults. The contributing influence of the continuing impact of WWII on the participants also needs to be considered when extrapolating the results of this study to other cohorts as they age, due to the possible impact that their involvement may have had on both their health and psychological profile.

8.5 *Overview and Conclusion*

In conclusion, this research was designed to identify and explore psychological strengths of older Australians. The mixed-method design of the study resulted in the collection of qualitative and quantitative data which provided both a deeper understanding of the psychological characteristics of older adults combined with the strength of empirical evidence. The complex nature of the older people who participated in the study is recognised and the individuality of these people is also acknowledged. Their generosity in sharing both their vulnerabilities and psychological strengths by participating in this study has provided valuable insights into how their psychological strengths impact on their health and quality of life. This information enriches existing knowledge and will provide community-based aged-care service providers with a better

understanding of the complex nature of community-based aged-care provision in addition to clear direction for policy makers.

The practical implications for the development of programs designed to enhance the identified strengths of optimism and resilience, due to their positive impact on health, is an important contribution to the community care of older adults. The addition of such programs into existing programs will be not only worthwhile, but will enrich the lives of older adults if such programs are able to provide them with volunteering opportunities or the opportunity to contribute back to their community. This contribution is also well recognised as being beneficial to the older adults involved and the community of which they are part.

The provision of individually structured community-based aged-care services based on the individual need of each older adult acknowledges the unique and complex background and make-up of each older person. Ensuring that the intrinsic strengths that many older adults possess are nurtured and utilised in their ability to remain in their community for as long as possible, not only makes sound financial sense from the perspective of state and federal governments and service providers, but also means that the community is able to share in the wisdom of older Australians for as long as possible.

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6 September 2005

Ms Coralie Graham
Faculty of Sciences
USQ

Dear Ms Graham

Re: Ethics Clearance for Research Project, *The relationships of positive psychological constructs to measure subjective health status and quality of life in older Australians receiving low-level community care*

The USQ Human Research Ethics Committee recently reviewed your application for ethics clearance. Your project has been endorsed and full ethics approval is confirmed subject to written permission from Ozcare, Blue Care and RSL Care to recruit participants from their organisation. Reference number **H05STU497** is assigned to this approval that remains valid to 6 September 2006.

The Committee is required to monitor research projects that have received ethics clearance to ensure their conduct is not jeopardising the rights and interests of those who agreed to participate. Accordingly, you are asked to forward a **written report** to this office after twelve months from the date of this approval or upon completion of the project.

A questionnaire will be sent to you requesting details that will include: the status of the project; a statement from you as principal investigator, that the project is in compliance with any special conditions stated as a condition of ethical approval; and confirming the security of the data collected and the conditions governing access to the data. The questionnaire, available on the web, can be forwarded with your written report.

Please note that you are responsible for notifying the Committee immediately of any matter that might affect the continued ethical acceptability of the proposed procedure.

Yours sincerely

C. Bartlett

Christine Bartlett
Postgraduate and Ethics Officer
Office of Research and Higher Degrees

cc: Dr T Fallon

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Dear Participant Date:

My name is Coralie Graham and I am a PhD student at the University of Southern Queensland. I am carrying out a project investigating the personal strengths and qualities that older people have that influence how they perceive their health and quality of life. This project is under the supervision of Dr Tony Fallon and Dr Christine Neville from the Centre for Rural and Remote Area Health.
I would like to hear about what you think is important in maintaining your health and quality of life as you get older. Participation in this study will involve meeting with me on one occasion for somewhere between one and two hours. I will take notes during the interview and the interview will also be audio-taped. The meeting will take place at the time and place of your choice. Following the interview, I will send you a copy of what you said during that interview for you to check to ensure I have made an accurate record of the interview and that you are comfortable with the content of the interview.

If you agree to participate in this study, your privacy will be strictly protected. I will ask you to choose a fictitious name or pseudonym, if you wish, so that your identity may be protected when my study is published. I will not include details of the interview that might be used to identify you. Additionally, the name of the agency though whom you receive support will be de-identified in any publications regarding this project.
The transcripts of the interview will be kept in a locked filing cabinet in a locked office only accessible to the researcher and her supervisors. Once the study is completed, the transcript will be kept at the Centre for Rural and Remote Area Health for a period of 5 years before being destroyed as confidential waste. All information is also kept on a password-protected database on the USQ network and is only accessible to the researcher and her supervisors. Following project completion, the data and related analyses will be transferred to compact disc and stored in a locked filing cabinet for a period of 5 years, after which the disk on which they are kept will be destroyed.

If you have any questions about this the study and to agree to participate, Coralie Graham can be contacted on (07) 4631 1993 or Dr Fallon on (07) 4631 5455. A summary of the results of the project will be placed on the Centre for Rural and Remote Area Health's website (www.usq.edu.au/crrah) at the completion of the project. If you want a written summary of the results sent to you, please fill out your details in the space provided below and the summary will be mailed to you.
Ethical Clearance for this study has been obtained from the University of Southern Queensland Human Research Ethics Committee, University of Southern Queensland. (Approval Reference Number H05STU497). Any questions regarding the implementation of the study can be directed to the Secretary of the Human Research Ethics Committee, Mrs Chris Bartlett on 4631 2956.
Yours sincerely
Coralie Graham

Consent Form

I (print your name), _____ am being asked to participate in a research project called 'The Influence of Psychological Strengths on Health and Quality of Life in Older Australians'. This study is being conducted, by Coralie Graham under the supervision of Dr Tony Fallon and Dr Christine Neville and has approval from the USQ Human Research Ethics Committee (Reference number H06STU577).

The project investigator hopes to learn more about the personal strengths and qualities that influence an older person's perceptions of health and quality of life. I consent to participate in the above study, the particulars of which have been explained to me in language that I can understand.

I acknowledge that:

a) I understand that my participation is completely voluntary and that I am free to withdraw from the project at any time and to withdraw any data supplied.

b) The project is for the purpose of research and not for treatment.

c) I have been informed that the confidentiality of the information I provide will be safeguarded.

d) I understand that the results of this study will be reported in theses and journal articles and that neither my individual responses nor my name will be identified individually in any dissertation or publication resulting from this research. Additionally, the agency through whom I was contacted will be de-identified in any publications regarding this project.

e) I declare that I am at least 18 years of age, and hereby give my consent to participate in this study.

f) I understand that I may request a copy of this consent form if I require one.

Signature : _____ Date: _____

Note : If you are interested in receiving a copy of a summary of the findings of this study please provide your address know so that one can be sent to you.

Address:_____

Phase 1 – Semi Structured Interview

Introduction: My name is Coralie Graham. I am a PhD student at the University of Southern Queensland. I am doing a study looking at what qualities and characteristics people over 65 years of age think are important in maintaining their health and quality of life. What you tell me today will be recorded and I will type exactly what you say to me into a document. Your information will be used in my research. The information you provide will be kept totally confidential and no information that could identify you will be provided in any report. Are you happy to go ahead with the interview?

Can I start with your date of birth?

First I would like you to tell me if you currently have or in the past month have had any of the following:

Condition	**Yes**	**No**
Back pain		
Asthma		
Arthritis		
Single joint problems		
Raised blood Pressure		
Diabetes		
Coronary Heart Disease		
Indigestion		
Bowel Problems		
Migraine		
Injury		
Epilepsy		
Depression		
Anxiety		
Other Conditions		

What do you consider as health? What constitutes physical health to you? What constitutes mental health?

What is quality of life to you? Prompts – standard of living, health (e.g., how does health influence your standard of living?), safety, income, achievements, relationships with others, involvement in community.

Can you tell me how the services you receive from (insert name of the agency)? How do the services you receive affect your health? How do you think they affect your quality of life?

What qualities do you have that help you to maintain their health and quality of life as you get older? Can you think of other people who are dealing well with the declines in health and quality of life that can occur as you get older? What qualities do you see in them that assist them to deal well with these declines? What about those who do not deal well? Can you recognise qualities in them that detract from their ability to deal well with these declines? Prompts – hope, optimism, explanatory style, resilience, spirituality

Thank you for your time today. What you have told me will be very important in my research to find out what things are important in the lives of older people in maintaining their health and quality of life. What you have told me will be treated with the strictest confidence.

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2 June 2006

Participants' address

Dear Participants name

The interview that you most kindly participated in regarding your strengths and your health and quality of life, as part of my research has been transcribed into the attached document. I would like you to check it and make any changes that you see fit including removing existing sections and adding new ones if you feel it necessary. Please feel free to write on the attached document if you wish.
The information gleaned from your interview has been extremely valuable to my research and I would like to tell you again just how grateful I am for your participation and open discussion.

I will phone you at your home in approximately one week from the date of this letter to talk to you about any changes you wish to make. I look forward to talking to you again soon.

Yours sincerely

Coralie Graham

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Ms Sue De Vries
Clinical Education Manager
RSL Care
301 Wickham Street
Fortitude Valley 4006

24 October 2005

Dear Sue
Regarding our telephone conversation about a project that I am conducting which examines which strengths and positive psychological characteristics older adults living with minimal support in the community use to maintain their health and quality of life.

I have enclosed a copy of my Ethical Clearance from the University of Southern Queensland. At this stage I am seeking access to participants who meet the criteria ie.over 65 years of age and receiving some support to live in their own home or hostel type accommodation. In order to avoid confounding the findings of my project I am choosing to exclude those people with a high RCS rating or those with dementia. I have also enclosed a copy of a summary, and consent forms for my project.

I am very much looking forward to working with RSL Care and the veterans you provide service to as I have had contact with some of your staff and clients when I worked as a Veteran's Home care Assessor for Ozcare before I commenced my study, and have much respect for them all.

I look forward to hearing from you soon. Please feel free to contact me either by phone 4631 1993, or mobile 0414609735, or by email : grahamco@usq.edu.au

Yours sincerely

Coralie Graham

Biographical Information of phase 1 Participants using Pseudonyms

About 'Jean'

Jean is a 78 year old lady who lives with her husband Joe who is 80 years old in a large fairly new home in a well-to-do neighbourhood. On arrival I notice the well kept gardens with a large display of beautiful flowering roses which are their pride and joy and justifiably so. I am invited into their front lounge which is a beautiful airy room with plush beige carpet and floral covered lounge chairs. In the centre of the table is a beautiful flowering begonia with soft pink rose like-flowers which matches the décor and was a gift from her daughter for mother's day.

Their home is filled by the smell of freshly cooked ANZAC biscuits which thankfully she offers me to try – fresh from the oven. Her husband who has recently had a stroke is resting, so we proceed with the interview.

Jean and Joe who until a few weeks ago have been able to get around in their own car now have to re organise their lives without their independence since Joe's stroke which paralysed eye muscles left him with double vision.

They receive assistance with domestic tasks once a fortnight, and a gardener who comes to mow whenever needed.

We sit in the front lounge and proceed with the interview, and shortly after we finish, Joe joins us. They are a couple obviously deeply devoted to each other, having recently celebrated their 50th Wedding anniversary.

About BL

On arrival in the street where BL lives, it was obvious that this was quite a well-to-do area with large houses on large blocks with an impressive view over Toowoomba. BL's home is a large split level brick home with a tidy yard. BL is dressed in a thin worn looking yellow and white checked shirt and blue short. He is a tall man aged 79 years, in good physical condition for his years. He has short grey hair, and a trimmed grey beard and moustache which he stroked thoughtfully as he spoke. Mrs BL and BL were eating lunch when I arrived. I sat in the lounge and waited while they finished their lunch. Their large spacious home is beautifully furnished with antique carved wooden furniture. The lounge where we sit to talk is furnished with cream jacquard fabric and although it must have been expensive furniture, it was not flamboyant. Despite his advancing years, BL continues to work as a locum pharmacist and worked most of his life as a pharmacist in that profession both in Toowoomba and in Goondiwindi where he had also been a councillor for many years. He is a quietly spoken man, with obvious intelligence and seems to enjoy talking about health issues which had been familiar to him as a pharmacist over the many years he worked with the community.

About MPG

MPG is an 89 year old lady who lives with her aged husband who has been recently hospitalised and is quite unwell. They have lived in the same home for over 30 years which is in a quiet suburban street in Toowoomba. Their home is a very basic wooden home on a large slopping block which means that the house is ground level at the front but has high steps at the back. They spend most of their time in the back sunroom which used to be her sewing room in earlier years. She has always been a 'crafty person' and continues to make beautiful dolls clothes and artificial flowers. In addition to this she is busy compiling a recipe cum advice book which she is preparing on the computer as her own legacy to her large family group of many grandchildren

and great grandchildren. Their now sparse garden was once a great source of pleasure for both she and her husband but due to the extreme current drought conditions and severe water restrictions they are unable to maintain it.
The room where we sat was a testament to MPG's craft ability with lounge covers she had made and a display case of decorated eggs of all types. It also housed a huge TV which provided a great deal of company and interest to MPG's husband who is an avid TV watcher. Their home is a basic home which has not changed greatly in the past 30 years and is comfortable but not luxurious.

About MW
MW is 84 years old, a small lady about 5 foot tall, neatly dressed in cream slacks, a red shirt and a cream neatly buttoned cardigan. She seemed anxious and keen to please and tell me what I wanted to hear. She lives alone in a camphor board home built about 60 years ago with arced brick steps leading up to the front door on a busy suburban street in a well-to-do area in Toowoomba. Her home is surrounded by others all built around the same era but now, as the people in MW's age group die or move into other accommodation there is evidence of a new generation of people in her area. MW's husband died over 20 years ago but she is happy in her home but thinking about her future there. She met me at the front door and we walked through the lounge which has changed very little in several decades, and is tidy and uncluttered. For the interview we sit at the small wooden round kitchen table in the sun on a cool winter's morning. Her kitchen too has changed little since the home was built many years ago and the faded laminex is contrasted by the dark wooden louver cupboard doors which were so popular at that time. At the end of the interview she makes me coffee and she relaxes and talks about some trips she made to China and Thailand many years ago, and muses that she might need to clean the cupboards before she dies, or that it would just be convenient if one of her daughters packed her a bag and put her into a fully furnished retirement unit. During our after interview chat she reminisced about raising her children and working at the family bakery to help pay the bills, and about how hard it was to manage during 'the depression'.

About RFJ
RFJ is a 78 year old man who lives alone in a 70's style brick home in a tidy suburban street community. His yard has no gardens as such but has tidy mowed grass and a cement drive way to his very neat home. His home is unchanged from the 70's when it was built; complete with the furniture inside to match; the lemon walls; the brown and white stripped cushions set in the brown vinyl lounge suite. RFJ's home is very tidy with nothing out of place, no dust, no papers, just tidy and plain.
We go through into the kitchen where RFJ invites me to sit at the laminated wood grain table. It is a sultry day outside, quite warm and feeling very much like it will rain. Half way through the interview there is a downpour.
RFJ is a very thin man with pale skin, and tidy neatly combed grey hair, who walks slowly and deliberately. I am aware that he has impaired vision although I know he can see some things. He is welcoming and keen to talk. He is dressed in tracksuit pants, a tidy white cotton button-up shirt, a brown knitted cardigan, and a pair of brown corduroy slippers.
A few months after the interview, RFJ moved to Redcliffe to live at the Masonic Home there. He is still adjusting to life away from his home.

About 'Sally' – This participant's interview was inaudible and was not used in the analysis
Sally is an 81 year old ex Women's Auxiliary Air Force, who lives with her husband in a busy suburban street in a modest brick home circa 1980. She has a number of health problems and requires Oxygen for 12 hours per day due to lung problems. She uses a wheelie walker to get around and has 4 of them in different areas of their split level home and outside so that she can still help water the garden.
We sat in a cluttered front room adorned with a number of crocheted pillows and chair covers which during the interview I found she enjoyed making. Outside every piece of ground was painted concrete paths with no areas of lawn that were visible. A number of potted plants were arranged near the front door suffering the effects of drought conditions and severe water restrictions. Sally was a tenacious lady who considered my questions stupid and told me so, although she was pleasant to me during the interview. During her time in the Women's Auxiliary Air Force she worked as a medical statistician (a job she also considered pointless and stupid) collating and making data entry for wounded servicemen during the war.
Sally wore a loose fitting shapeless but comfortable striped tunic with a cardigan fastened with a safety pin over the top and a pair of slip on slippers. She was slightly overweight and looked generally unwell with oxygen prongs in her nose during the interview and the noise of the oxygen concentrator in the background frequently interrupted by the sound of an automatic intermittent blood pressure measuring device her husband was wearing which was monitoring his high blood pressure.

About WMR
WMR is a 79 year old with significant health problems who lives alone in a retirement village. She has 6 adult children who provide support in many ways such as meals and transport. WMR is nicely dressed overweight lady who walks with a walking stick and has a moist sounding cough. Her home is nicely decorated with comfortable recliner chairs and surrounded by international memorabilia. She is quite obviously proud of her home which is tidy and uncluttered. She is a friendly lady who is welcoming and keen to help with my research in any way she can. Following the interview she added that it is important to focus on the positive things in your life and pay less attention to the negative things. Her comments suggested that she had raised her children by herself and had had tough times doing so and had learned to cope when things were tough. She spoke of the 'softness and wastefulness' of many of today's young people. During the interview we sat in her lounge/ dining room on very comfortable recliner chair with a nicely carved polished wooden table between us. A small polished wood dining table sat against the wall into the kitchen where she spoke of enjoying meals with her family. The dining table was adorned by many cards and an arrangement of fresh flowers she had received for Mother's Day the previous day, of which she was very proud.

About MJ
MJ is a 77 year old lady who had been a stores and clerical assistant in the Air Force during the war. She had moved to the unit where she now resides 5 months before my visit following the sale of the home that she and husband lived in for many years. She lived alone for 6 years in their family home after the death of her husband. It was almost the anniversary of her husband's death and her sense of loss was still apparent. She had suffered 2 TIAs in recent years which had influenced her decision to move to a retirement unit where she was now settled and very happy.

As a child MJ had contracted polio and considered herself extremely fortunate to be as able as she is.
The unit where MJ is living is a clean, open and newly built. The furniture was basic and practical with photos of many obviously deeply loved grandchildren adorning her walls. The day of the interview was extremely hot and the air-conditioning in her unit was a welcome respite from the heat. MJ seemed to enjoy the opportunity to talk about her health and her life, as well as to have some company.

About DR
DR lives with his wife in a very ordinary looking suburban street in a very ordinary looking 70's style suburban home which is basic, clean and comfortable. He is now 86 years of age. We sat on the front verandah in the sunroom during the interview. DR had joined the army at 19 years of age and was in the Engineering division. He had been one of the 'Rats of Tobruk' during WWII. He left the army after a medical discharge from losing his left arm – which is missing from just below the shoulder. After our interview he took me to the back of the house into another sunroom which had family photos and various pieces of war memorabilia. There were other photos of him and other military personnel which he obviously enjoyed showing to me. He showed me maps of Tobruk and pointed to where he and his group had been during the war. He also showed me a copy of the letter dropped by German military inviting them to surrender that he had discussed during the interview. He described how he and his group had helped construct a memorial from used brass gun casings to make the plaque for the names of fallen soldiers. It was a very humbling experience to talk to this man who had a very positive outlook despite extreme hardships during the war and in his later life coping with his obvious disability which he barely mentioned.

About DM
DM is a 93 year old lady who lives in a quiet suburban street in a cull de sac overlooking a park, in a lovely brick home surrounded by terraced native gardens. Her come is an air-conditioned comfortable practical home with lots of paintings on the wall and other memorabilia from Thailand as she has a niece who travelled there. We sat at a wooden kitchen table as we spoke. She shares her home with a part-time paid carer and her companion 'Mitzi' a 4 year old poodle. DM had worked as an army nurse in Singapore shortly before its fall. DM said that although she had never married, she had no regrets. She had moved to Toowoomba from Perth 10 years previously to be closer to her brother who has since died. Before coming from Perth she had her new home built 'because she wanted a new one'. All this at the age of 83 years of age: an amazing lady with a very positive outlook.

About 'Valda'
Valda is a 78 year old small framed friendly lady who lives in a retirement unit. She moved here following the death of her husband 15 years ago. She welcomes me into her unit which is spacious and has only minimal 80's style furniture and which is tidy and practical. Her turquoise blouse and cardigan, navy slacks and flat soled black shoes are also tidy and practical. Valda shows me thorough to sit at the small square kitchen table with a neatly ironed blue linen table cloth. She tells me about her life in a village where she had lived for many years and a little of her life in her younger days. She worked mainly in an administrative /secretarial position and spent the war reconciling clothing coupons for her employer in Melbourne whose family she is

still in close contact with. She married at 38 years of age and had no children of her own but had numerous photos of a niece about whom she spoke frequently and fondly. Valda is a friend of another participant in this study and seemed relaxed throughout and seemed to enjoy the interaction

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Dear Mr / Mrs

A few months ago you kindly participated in an interview for a research project that I am conducting and requested a summary of the findings of that study. The study that I am conducting is a 2 phase study, looking at which psychological strengths older adults use to looking after their health and quality of life.

Ten interviews were conducted and the information all participants provided was studied. There were a number on interesting findings which are well supported by previous research in this area. The following summary includes the information from all the people interviewed, so may differ slightly from your own personal view.

Most people considered having good health and quality of life as being able to be free of pain, to be able to move around their home and live independently. Most agreed that having a positive outlook, being able to laugh and be happy was very important in being healthy and having a good quality of life. The importance of social networks, including having friends and family was also very important, as was being able to be adaptable to new situations. Most also considered that having faith in God and prayer were important , regardless of whether they were able to attend religious services or not. Being able to give something back to the community or family, by way of providing assistance to others was also considered to be important e.g. Some people made or fixed things for others, while others volunteered for various organisations. The importance of the community supports services that the participants' received, varied and included meals-on-wheels, home help, home nursing and others. All participants noted that these services were vital and played an important role in maintaining their health and quality of life.

The valuable information gained from the interview with yourself and other participants in phase 1 of my project and will determine the survey types that will be used in phase 2 which is about to commence.

Thank you again for your participation in this project which you may be interested to know has been presented at an International Conference on Healthy Ageing in Melbourne last month and will be presented at another International Conference on Psychological Strengths in India next month.

Yours sincerely

Coralie Graham

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

The data from these surveys will assist us to better understand the psychological strengths of the older adult in relation to their health
The importance of community supports services you receive will also be evaluated.
Please answer all questions by ticking the appropriate box.

1.Gender: | Male | | Female | |

2. Age group : | 65 – 84 years | | 85 years + | |

3. Accommodation: | House | | Retirement Unit | |

4. Marital status. | Married | | Single | | Divorced | | Widowed | |

5. How many people live with you?

Live alone		Live with others – how many?	

6. Postcode of the area where you live_____Town / City Name:_____

7. Please list any voluntary work for your community,(eg. club or organization eg. secretary, or making/ repairing things for others.) _____

<u>About the HACC services you receive:</u>

1. Please tick which service(s) you receive.

Home Help		Community Nursing		Meals on Wheels		Community transport		Home Help		Other	

2. Please indicate your level of satisfaction with the services provided to you

Very satisfied		Satisfied		Very dissatisfied		Dissatisfied	

3. Please indicate your level of satisfaction with the way the care workers help you?

Very satisfied		Satisfied		Very dissatisfied		Dissatisfied	

4. Do you feel that the charges for the HACC services you receive are:

Too high		Appropriate		Too low	

5. How much do the HACC services that you receive affect your heath

Very positively		Positively		Negatively		Very negatively	

Please comment on the way that the service that you receive could be improved:

_____

_____

Your Health and Well-Being

This questionnaire asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities. ***Thank you for completing this survey!***

For each of the following questions, please mark an ☒ in the one box that best describes your answer.

1. In general, would you say your health is:

Excellent	Very good	Good	Fair	Poor
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

2. <u>Compared to one year ago</u>, how would you rate your health in general <u>now</u>?

Much better now than one year ago	Somewhat better now than one year ago	About the same as one year ago	Somewhat worse now than one year ago	Much worse now than one year ago
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

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3 The following questions are about activities you might do during a typical day. Does <u>your health now limit you</u> in these activities? If so, how much?

	Yes, limited a lot	Yes, limited a little	No, not limited at all
a Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	☐ 1	☐ 2	☐ 3
b Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	☐ 1	☐ 2	☐ 3
c Lifting or carrying groceries	☐ 1	☐ 2	☐ 3
d Climbing several flights of stairs	☐ 1	☐ 2	☐ 3
e Climbing one flight of stairs	☐ 1	☐ 2	☐ 3
f Bending, kneeling, or stooping	☐ 1	☐ 2	☐ 3
g Walking more than a kilometre	☐ 1	☐ 2	☐ 3
h Walking several hundred metres	☐ 1	☐ 2	☐ 3
i Walking one hundred metres	☐ 1	☐ 2	☐ 3
j Bathing or dressing yourself	☐ 1	☐ 2	☐ 3

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4. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
a Cut down on the amount of time you spent on work or other activities	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b Accomplished less than you would like	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c Were limited in the kind of work or other activities	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d Had difficulty performing the work or other activities (for example, it took extra effort)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

5. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
a Cut down on the amount of time you spent on work or other activities	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b Accomplished less than you would like	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c Did work or other activities less carefully than usual	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

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6. **During the <u>past 4 weeks</u>, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbours, or groups?**

Not at all	Slightly	Moderately	Quite a bit	Extremely
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

7. **How much <u>bodily</u> pain have you had during the <u>past 4 weeks</u>?**

None	Very mild	Mild	Moderate	Severe	Very severe
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6

8. **During the <u>past 4 weeks</u>, how much did <u>pain</u> interfere with your normal work (including both work outside the home and housework)?**

Not at all	A little bit	Moderately	Quite a bit	Extremely
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

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9. These questions are about how you feel and how things have been with you <u>during the past 4 weeks</u>. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the <u>past 4 weeks</u>...

	All of the time	Most of the time	Some of the time	A little of the time	None of the time
a Did you feel full of life?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b Have you been very nervous?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c Have you felt so down in the dumps that nothing could cheer you up?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d Have you felt calm and peaceful?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
e Did you have a lot of energy?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
f Have you felt downhearted and depressed?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
g Did you feel worn out?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
h Have you been happy?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
i Did you feel tired?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

10. During the <u>past 4 weeks</u>, how much of the time has your <u>physical health or emotional problems</u> interfered with your social activities (like visiting with friends, relatives, etc.)?

All of the time	Most of the time	Some of the time	A little of the time	None of the time
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

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11. How TRUE or FALSE is <u>each</u> of the following statements for you?

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
a I seem to get sick a little easier than other people	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b I am as healthy as anybody I know	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c I expect my health to get worse	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d My health is excellent	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Thank you for completing these questions!

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OAASQ

Below you will find some situations that might happen in your life these days. Please read each situation and vividly imagine it happening to you. Then, write the one major cause of the situation in the blank provided. By major cause, we mean the one primary reason you would give for this situation happening to you. Then, you will be asked to answer three questions about the cause. Circle the number corresponding to your feelings about each question.

***Example:* You get into an argument with a store clerk.**

One major cause: *The clerk was in a bad mood.*

Is the cause of the argument something about you or something about other people or the outside world?

Its mostly due to the clerk, so I will put a 2.

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when you argue with store clerks, will this cause again be present?

Maybe the clerk was just in a bad mood; I will put a 4.

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects you arguing with store clerks or does it also influence other aspects of your life?

It is just about this one clerk, so I will put a 1.

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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1. You meet a friend who compliments you on your appearance.

One major cause_____

_____

Is the cause of your friend's compliment due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when you are with your friends, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects interacting with friends or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

2. You misplace your wallet, and can't remember where you put it last.

One major cause:_____

_____

Is the cause of your wallet being misplaced due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when looking for your wallet, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is this cause something that just influences misplacing your wallet or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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3. Your doctor says you are in good shape.

One major cause: _____

_____

Is the cause of your doctor saying you are in good shape due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In your future medical examinations, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects what your doctor says to you or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

4. A friend comes to you with a problem and you don't try to help them.

One major cause:_____

_____

Is the cause of your not helping your friend due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when a friend comes to you with a problem, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects what happens when a friend comes to you with a problem or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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5. You fall and break your hip.

One major cause: _____

_____

Is the cause of the your accident due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when having an accident, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just influences having accidents or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

6. Your performance as a volunteer is highly praised.

One major cause: _____

_____

Is the cause of being praised due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when volunteering, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just influences your volunteering or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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7. You meet a friend who acts in a hostile manner towards you.

One major cause: _____

_____

Is the cause of your friend acting in a hostile manner due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when interacting with friends, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just influences interacting with friends or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

8. You are feeling especially tired and are experiencing a lack of energy.

One major cause: _____

_____

Is the cause of your feeling tired due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when feeling tired, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects feeling tired or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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9. Your family has been treating you more lovingly.

One major cause: _____

_____

Is the cause of your family treating you more lovingly due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In future interactions with your family, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects how your family treats you or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

10. The cashier at the supermarket makes a mistake and gives you too little change, and you catch the mistake.

One major cause: _____

_____

Is the cause of catching the mistake due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when catching other people's mistakes, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just influences catching other people's mistakes or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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11. You go out to dinner with a friend or relative you have not seen for a long time and it goes badly.

One major cause: _____

_____

Is the cause of the dinner going badly due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when interacting with people you have not seen in a long time, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just influences seeing people you have not seen in a long time or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

12. You get less sleep than normal one night and still have enough energy the next day.

One major cause: _____

_____

Is the cause of you having enough energy despite not getting enough sleep due to something about you or something about other people or circumstances?

1	2	3	4	5	6	7
Totally due to other people or circumstances			Equally due to both			Totally due to me

In the future when you are not able to sleep as well as usual but have enough energy the next day anyway, will this cause again be present?

1	2	3	4	5	6	7
Will never again be present			May be present			Will always be present

Is the cause something that just affects your sleeping and energy level or does it also influence other areas of your life?

1	2	3	4	5	6	7
Influences just this particular situation			Influences several areas of my life			Influences all situations in my life

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Life Orientation Test – Revised

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no correct or 'incorrect' answers. Answer according to your own feelings, rather than how you think 'most people' would answer.

Place a tick in the box that best relates to you

	Agree a lot	Agree a little	Neither agree nor disagree	Disagree a little	Disagree a lot
1. In uncertain times I usually expect the best					
2. It is easy for me to relax					
3. If something can go wrong for me, it will.					
4. I am always optimistic about my future					
5. I enjoy my friends a lot					
6. It is important for me to keep busy					
7. I hardly ever expect things to go my way					
8. I don't get upset too easily					
9. I rarely count on good things to happen to me					
10. Overall, I expect more good things to happen to me than bad					

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*, 1063-1078.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*, 1063-1078.

Connor-Davidson Resilience Scale

Please indicate how much you agree with the following statements as they apply to you over the past month. If a particular situation has not occurred recently, answer according to how you think you would have felt. Place a tick in the area which relates to you best.

1. I am able to adapt when changes occur.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

2. I have at least one close and secure relationship which helps me when I am stressed.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

3. When there are no clear solutions to my problems, sometimes fate or God can help.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

4. I can deal with whatever comes my way.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

5. Past successes give me confidence in dealing with new challenges and difficulties.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

6. I try to see the humorous side of things when I am faced with problems

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

7. Having to cope with stress can make me stronger.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

8.I tend to bounce back after illness, injury, or other hardships.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

9. Good or bad, I believe that things happen for a reason.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

10. I give my best effort, no matter what the outcome may be.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

11. I believe I can achieve my goals, even if there are obstacles.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

12. Even when things look hopeless, I don't give up.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

Connor Davidson Resilience Scale © 2001,2003 Kathryn M. Connor, MD, Jonathan R.T. Davidson, M.D. A
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13. During times of stress /crisis, I know where to turn for help.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

14. Under pressure, I stay focused and think clearly.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

15. I prefer to take the lead in solving problems, rather than letting others make all the decisions.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

16. I am not easily discouraged by failure.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

17. I think of myself as a strong person when dealing with life's challenges and difficulties.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

18. I can make unpopular and difficult decisions that affect other people if necessary.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

19. I am able to handle unpleasant or painful feelings like sadness, fear and anger.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

20. In dealing with life's problems, sometimes you have to act on a hunch, without knowing why.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

21. I have a strong sense of purpose in life.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

22. I feel in control of my life.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

23. I like challenges.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

24. I work to attain my goals, no matter what roadblocks I encounter along the way.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

25. I take pride in my achievements.

Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

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USQ
AUSTRALIA

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Email: bartletc@usq.edu.au

19 September 2006

Ms Coralie Graham
19 Edmund Street
TOOWOOMBA Q 4350

Dear Ms Graham

Re: Ethics Clearance for Research Project, *The relationship of positive psychological constructs to measures of subjective health status and quality of life in older Australians receiving low level community care*

Your request for an extension of ethics approval for your research project has been endorsed by the Chair of the USQ Human Research Ethics Committee. Reference number **H06STU577** has been assigned to this approval. Please note this approval will expire on 19 September 2007.

The Committee is required to monitor research projects that have received ethics clearance to ensure their conduct is not jeopardising the rights and interests of those who agreed to participate. Accordingly, you are asked to forward a **written report** to this office after twelve months from the date of this approval or upon completion of the project.

A questionnaire will be sent to you requesting details that will include: the status of the project; a statement from you as principal investigator, that the project is in compliance with any special conditions stated as a condition of ethical approval; and confirming the security of the data collected and the conditions governing access to the data. The questionnaire, available on the web, can be forwarded with your written report.

Please note that you are responsible for notifying the Committee immediately of any matter that might affect the continued ethical acceptability of the proposed procedure.

Yours sincerely

C. Bartlett

Chris Bartlett
Postgraduate and Ethics Officer
Office of Research and Higher Degrees

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USQ WORLD BEST PRACTICE

Spiritus
A MEMBER OF ANGLICARE AUSTRALIA

4 June 2007

Dear Spiritus Client

I would like to introduce to you Ms Coralie Graham, PhD Student currently at University of Southern Qld and the research project she is currently undertaking investigating the personal strengths and qualities older people have that influence how they perceive their health and quality of life. Please see the enclosed letter from Coralie which provides further information on the project and requests your participation.

We hope you will take advantage of the opportunity to participate in this study but would like to emphasise that your participation is completely voluntary. There is no obligation to participate and you may choose not to or discontinue your participation in the study at any time without comment or penalty. Coralie has received approval from the Spiritus Human Research & Ethics Committee (HREC) to conduct this research. The researcher [Coralie Graham] has not been provided with your name or address. That information is known only to Spiritus.

Spiritus is pleased to be associated with this study and anticipates that findings from this study will assist us in projecting the needs for our services and how they are delivered.

If you have any questions about involvement by Spiritus in the project please contact Gillian Stockwell-Smith, Spiritus Business Direction Manager by telephone on 07 3421 2832, or by email at gstockwell-smith@spiritus.org.au. If you have any questions about the research project please contact Coralie Graham directly.

Thank you for your assistance in this project.

Regards,

Gaylene Coulton

Gaylene Coulton
General Manager Care Services

PO Box 167, Stones Corner Q 4120 ◆ 138 Juliette Street, Greenslopes Q 4120
Telephone (07) 3421 2800 ◆ Fax (07) 3421 2888

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RSL Care ABN 90 010 488 454

Dear RSL Care Client

Re. "The Influence of Psychological Strengths on Health in Older Australians"

RSL Care is providing this information package to you regarding a research project investigating personal strengths and qualities that older people have that influence how they perceive their health. We support this research being undertaken as we believe the findings will provide valuable information to assist us provide on going quality care to you and the community.

However the decision to participate is entirely up to you and RSL Care does not wish to influence that decision in any way.

The research is being undertaken by Coralie Graham, a PhD student at the University of Southern Queensland under the supervision of Dr Don Gorman from the Centre for Rural and Remote Area Health and Dr Hong Eng Goh from the Psychology Department. The information package contains information about what taking part in this research involves.

Your name has been randomly selected from RSL Cares clients and we wish to assure you that no personal information has been, or will be transferred to the research group. If you agree to participate in this study, the information you provide on the returned questionnaires will be treated with strict confidentiality.

If you have any questions about this study please contact Coralie Graham on 0414 609735 or Dr Gorman on (07) 4631 5456 directly for further information.

Yours sincerely

Mary-Anne Bowyer
Strategy Advisor - Community

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USQ
AUSTRALIA

Centre for Rural and Remote Area Health

A Joint Research Centre of the University of Southern Queensland and The University of Queensland

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

West Street
Toowoomba Q 4350
Phone: (07) 4631 5444
Fax: (07 4631 5452
Email:crrah@usq.edu.au USQ
CRICOS NO 00244B

Dear Participant Date:

My name is Coralie Graham and I am a PhD student at the University of Southern Queensland. I am carrying out a project investigating the personal strengths and qualities that older people have that influence how they perceive their health. This project is under the supervision of Dr Don Gorman from the Centre for Rural and Remote Area Health and Dr Hong Eng Goh from the Psychology Department

If you agree to participate in this study, the information you provide on the returned questionnaires will be treated with strict confidentiality. The agency from whom you obtain support has sent this to you at my request, and have kept a list of who they sent this to, which is linked to the unique number at the top of your questionnaires. I do not have a copy of this list so I am not able to identify you in any way. Additionally, the name of the agency will be de-identified in any publications regarding this project. Once I receive your returned questionnaires, they will be kept in a locked filing cabinet in a locked office only accessible to the researcher and her supervisors.

Once the study is completed, the questionnaires from this project will be kept at the Centre for Rural and Remote Area Health for a period of 7 years before treated as confidential waste. Data collected will be collated on a password-protected database on the USQ network only accessible to the researcher and her supervisors. Following project completion, the data and related analyses will be transferred to compact disc and stored in a locked filing cabinet for a period of 7 years, after which the disk on which they are kept will be destroyed.

If you have any questions about this study, Coralie Graham can be contacted on (07) 4631 1993 or Dr Gorman on (07) 4631 5456. A summary of the results of the project will be placed on the Centre for Rural and Remote Area Health's website (www.usq.edu.au/crrah) at the completion of the project. If you want a written summary of the results sent to you, please fill out your details in the space provided on the Consent Form and the summary will be mailed to you.

Ethical Clearance for this study has been obtained from the University of Southern Queensland Human Research Ethics Committee, University of Southern Queensland. (Approval Reference Number H06STU577). Any questions regarding the implementation of the study can be directed to the Secretary of the Human Research Ethics Committee, Mr Sam Tickell on 4631 2938.

Yours sincerely
Coralie Graham

Consent Form

Project Title: The Influence of Psychological Strengths on Health in Older Australians'.

Researcher: Coralie Graham

- I understand that my participation is completely voluntary and that I am free to withdraw from the project at any time and to withdraw any data supplied.
- The project is for the purpose of research and not for treatment.
- I have been informed that the confidentiality of the information I provide will be safeguarded.
- I understand that while information gained through the study will be published, I will not be identified and any data from me will remain confidential.
- I declare that I am at least 18 years of age
- I understand that I may request a copy of this consent form if I require one.

Signature : _____ Date: _____

Note : If you are interested in receiving a copy of a summary of the findings of this study please provide your address know so that one can be sent to you.

Address:_____

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Rural and Remote
Area Health

THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

**A Joint Research Centre of the University of Southern Queensland
and The University of Queensland**

West Street
Toowoomba Q 4350
Phone: (07) 4631 5444
Fax: (07 4631 5452
Email:crrah@usq.edu.au USQ
CRICOS NO 00244B

Dear Participant June 2007

This letter is a reminder about some surveys you were sent by the agency who co ordinates some care that you receive approximately 2 weeks ago. You were asked to complete these surveys (if you chose to) for a project that I am undertaking at the University of Southern Queensland.

The research project that I am undertaking as part of my PhD is called 'The Influence of Psychological Strengths on Health in Older Australians' and your responses to the survey are very important in collecting valuable information about the psychological influences on health in older Australians.

If you have already returned the surveys, thank you very much for your participation. If you have not had time to complete them, but would like to, please post them back to me in the post paid envelope enclosed with the survey.

Thank you very much for your time.

Yours sincerely

Coralie Graham

Comments by Participants of Volunteering Activities

Help a friend with her sewing and mending and shopping and just being there
Knit for world vision children
Lions club for over 40 years
Environmental lobbyist
Knitting 10" squares which are made into rugs to distribute to needy
Knitting beanies to send overseas to poorer countries in winter
Knitting and crochet
RAAF association and Leukemia Collector
I still research and write, so give donations rather than work
Knitting for under privilege children, hospitals, premmie babies
raise funds for world vision club
Lions; RSL; Probus
Touch football clerical and book work (games etc). soccer (maintenance service, stock control, recording)
Knitting baby clothes for charity
President(Branch Aust. pensioners and superannuates league);committee member Rhapsody music club
Naval Assoc - Cadets. Editor, newsletter Evangelical Lutheran Church
Lions, Legacy, RSL
Work in hospice craft shop once a fortnight
Caloundra carers support; ex-service women's assoc WAAAF Branch ARFC
Church and community service
Currumbin happy group
Club
Committee Bowling club
Repairs for others
Tickets and badge selling and raffles
RSL; Air force assoc, church
Donation where possible
John Hunter hospital baby clothes
Secretary of body corporate and maintenance of unit block
Repair things when I can
Visit a housebound friend regularly
U3A tutor
Peninsula animal aid
At 90 I had to give up such things. A big house and garden to care for
Neighbourhood watch
Secretary Probus club
Pastoral care
Organization for the hospital
Legacy - Hon auditor ladies Laurel Club
Help the running of our social activity groups
Personal assistance to neighbours. Supplying raffle packages, rugs for babies hospital
Treasurer of M.U., church organist
Honorary secretary
Legacy work
Working within our village for charities, especially cancer
Caboolture Koala care and rescue
Church Janitor
Book advice and office alumni association of University of Queensland

List of Participant Comments regarding Service and Possible Improvements

Happy with care and attention I receive
No**t** too many staff changes
RSL to ensure that, if possible, that the same care worker render the service
Staff should only be changed in case of illness or holidays to enable them to be familiar with work and premises thus providing service without supervision of occupant. However organisations providing services should insure staff are competent see service
More thorough cleaning
Communications could be better. A telephone call when service not available
The time that helpers come be more suited to our needs. Although I realize that there are timetables and budgets to be met, so this isn't always possible. I appreciate the help, whatever the time. I would like my groceries to be delivered weekly - very difficult to plan 2 weeks ahead. a full order takes the shoppers 30-45 mins longer than planned
I would like to have the same person each week, but I realise the difficulty RSL has in recruiting suitable staff
Perhaps an extra hour
I was receiving social support which was dreadful, so I have cancelled. Domestic support is very good
I am very pleased with the help I get although there is always improvement to be made in all walks of life
Better organised. Time and continual change of helpers
More transport would help
Need cleaners to be able to dust on top of cupboards or shelfs but they say they can't get up on ladders. Like fans to be cleaned also.These are important. Dust is there where we can't do ourselves
home carer are not allowed to do things I need (e.g.) dusting blinds, cleaning anything high (have almost lost the use of my arms and cannot reach up. Also I have 'positional' vertigo which precludes me from looking up or down
Find me an honest live in female carer
Maybe weekly visit instead of once per fortnight
I would prefer 2 hours shopping as 1.5 hours is always a rush (or shop once a week)
Cleaning windows, cleaning balcony and downstairs
a cleaning (professional) service once a year for curtain washing and window cleaning
Sometime I feel embarrassed at the state of the house and feel I have to explain why I have so much paper etc everywhere. I prefer the same people each fortnight and feel very stressed at new ones
That the services provided need a lot more funding
More time for the job
More contact, even by phone. Routine contact
I get 2 hours respite every week, maybe 3 hours every so often to see a film
Home help. We have to lift everything off the floor for cleaning. I disagree with this as that is the help arthritis suffers need
More time - more hours
More volunteers The 1.5 hours I receive could be increased to 2 hours
Longer time
Clean windows, mow, dust items
1.5 hours Home Help is insufficient