

**Bond University**

## **DOCTORAL THESIS**

**Retirement: Effects of a Psychoeducational Program.**

Glenn Goold, Moyna

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Retirement: Effects of a Psychoeducational Program

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A thesis completed in partial fulfilment of the requirements of the

Doctorate in Psychology

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Faculty of Humanities and Social Sciences

School of Social Sciences

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### Candidate's Declaration

This thesis is submitted to Bond University in partial fulfilment of the requirement for the degree of Doctor of Psychology.

This thesis represents my own work and contains no material, which has been previously submitted, for a degree or diploma at this University or any other institution.

Signature:

Date: 15 October 2007

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## Table of Contents

Title	i
Candidate's Declaration	ii
Acknowledgements	iii
Table of Contents	iv
List of Tables	
Study 1	x
Study 2	x
List of Figures	
Study 1	xi
Study 2	xi
Abstract	xii

## Chapter One

## Literature Review

The problem	1
International Year of Older Persons (1999)	2
Local Demographics	3
Australian Psychological Society Position Paper (2000)	5
The First Australian Psychological Society and Aging	6
Interest Group Conference (2005)	
Research into Retirement	8
Programs to prepare for retirement	11
Depression	16
Coping	18
Demographics influencing depression-happiness	21

Gender Differences	22
Age	23
Ethnicity	24
Education	24
Income	24
Marriage	25
Happiness	28
Definition	28
Measurement	28
Happiness Research	29
Theoretical Perspectives	30
Research Studies	34
Longevity	34
Problem Solving	35
Overview	36
Rationale and Hypotheses for Study One	38
Chapter Two	
Study One	
Method	43
Participants	43
Design	43
Materials	44
Background Information	44
Questionnaire 1: <i>Coping Strategies for Adjustment to Retirement</i>	47
Questionnaire 2: <i>Depression Happiness Scale</i>	49

Questionnaire 3: <i>Cognitive Coping Subscale from the Stress Assessment Inventory</i>	50
Questionnaire 4: <i>Coping Scale for Adults</i>	52
Procedure	56
Results	58
Demographic profile of participants	58
Exploratory analyses of the main dependent variables	59
Descriptive statistics	61
Main Analyses	61
Discussion	68
Overview	71
Limitations	72
Conclusion	72
Chapter Three	
Study Two	
Literature Review	74
Efficacy of cognitive behavioural therapy (CBT)	75
Cognitive behavioural theory	77
Application of CBT to the elderly	78
Application of CBT in group settings	78
CBT psychoeducational groups	79
Stress /depression management	80
Happiness interventions	82
Behaviour of happy people	83
Questions asked by Study Two	87

Hypotheses and rationale	87
Method	91
Participants	91
Design	91
Measurement	92
Procedure	93
Results	
Demographic Profile of Participants	96
Exploratory Analysis of the Main Dependent Variables	96
Descriptive statistics	97
Main Analyses	97
Discussion	103
Evaluation	106
Overview	107
Chapter Four	
Overall Conclusions	109
Recommendations	112
References	114
Appendixes	
Appendix A	132
Approvals: Bond University Ethics Committee	133
Study One (R0036)	
Study Two (R00148)	
Appendix B	134
Study One	

B1	Flyer	135
B2	Press release	138
B3	Telephone script	140
Participants' package:		142
B4	Contents	143
B5	Explanatory Statement	145
B6	Background information	147
B7	Q1 <i>Coping Strategies for Adjustment to Retirement Questionnaire</i> (Chalip, Glenn Goold, Klokiw & Russell, 1999)	151
B8	Q2 <i>Depression Happiness Scale</i> (McGreal and Joseph, 1993)	157
B9	Q3 <i>Cognitive coping subscale of the Stress Assessment Inventory</i> (Nowack, 1990)	159
B10	Q4 <i>Coping Scale for Adults</i> (Frydenberg and Lewis, 1997)	161
B11	Q5 Activities	164
Appendix C		182
Study Two		
C1	Flyer for recruitment of participants	183
Participants' package:		184
C2	Explanatory statement	185
C3	Letter to potential participants	187
C4	Participant informed consent	189
C5	Questionnaire 1, <i>Depression Happiness Scale</i> (McGreal and Joseph, 1993)	191 180
C6	Daily strategies (Glenn Goold, 2001)	193
C7	Psychoeducational program outline	195

Session 1	196
Session 2	196
Session 3	197
Session 4	197
Session 5	197
Session 6	197
C8 Evaluation form	200
C9 Evaluation responses	202
C10 Evaluation follow-up form	209
C11 Evaluation follow-up responses	211

## List of Tables

## Study One

Table 1	Bivariate Correlations of DHS, CSARQ, SAI, and CSA	66
Table 2	Means and Standard Deviations of DHS, CSARQ, SAI, and CSA scores for MANOVA	68
Table 3	Unstandardized and Standardized Coefficients, Standard Errors and Confidence Intervals of the Unstandardized Coefficients Scores	70
Table 4	Bivariate Correlations of DHS, CSARQ, SAI, and CSA variables for males and females	71

## Study Two

Table 5	Means and Standard deviations of DHS scores for group x gender x treatment	97
Table 6	Means and Standard Deviations of DS scores for Happy x Treatment Mixed Factorial ANOVA.	101

## List of Figures

## Study One

Figure B1	Gender	167
Figure B2	Age	168
Figure B3	Country of birth	169
Figure B4	Marital status	170
Figure B5	Current living arrangement	171
Figure B6	Community living arrangement	172
Figure B7	Source of current income	173
Figure B8	Income the year before retirement	174
Figure B9	Current income	175
Figure B10	Highest education level achieved	176
Figure B11	Employment status prior to retirement	177
Figure B12	Australian Bureau of Statistics employment categorisation	178
Figure B13	Reason for retirement	179
Figure B14	Perceived physical health	180
Figure B15	Perceived mental/emotional health	181

## Study Two

Figure 16	Depression Happiness Scale mean scores by gender	99
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## Abstract

The problem investigated in this research, comprising 2 studies, concerned factors influencing successful transition to retirement. Study 1 employed a survey methodology to explore the effects of demographics, involvement in activities, and the use of effective coping strategies/styles on depression-happiness levels. Participants were 370 retirees, who completed questionnaires comprising the measurement instruments: *Depression Happiness Scale* (McGreal & Joseph, 1993); *Coping Strategies for Adjustment to Retirement Questionnaire* (Chalip, Glenn Goold, Klokiw & Russell, 1999); Cognitive Coping Style subscale from the *Stress Assessment Inventory* (Nowack, 1990); and *Coping Scale for Adults* (Frydenberg & Lewis, 1997). The 3 coping instruments were used to assess different aspects of coping. A significant multivariate effect for gender,  $F(4, 357) = 5.87, p < .001, n^2 = .062$  on all measurement instruments was found. Females were significantly more depressed than males,  $F(1,360) = 6.80, p < .009, n^2 = .019$ . Males reported using significantly more pro-active coping strategies than females,  $F(1,360) = 5.30, p < .022, n^2 = .015$ . Males used significantly fewer positive cognitive coping strategies than females,  $F(1,360) = 7.75, p = .006, n^2 = .021$ . Males used a significantly less productive coping style than females,  $F(1,360) = 9.88, p = .002, n^2 = .027$ . Happy participants used significantly more productive strategies than less happy participants,  $F(3,360) = 22.14, p < .001$ . Implications from Study 1 were that since happy participants used more productive coping strategies than less happy participants, it would be beneficial for less happy participants to develop more productive coping strategies. Study 2, emerged from the findings of Study 1. Comprising 84 participants, it used an experimental design, and investigated whether retirees could develop coping strategies to enhance happiness. Participants were matched according to their

Depression Happiness Scale scores, and then one from each pair was randomly assigned either to a treatment group or to a control group. There was a significant difference in scores between the control group and the treatment group at post-test,  $F(1,77) = 4.13$ ,  $p = .046$ ,  $n^2 = .051$ , and at six-week follow-up,  $F(1,77) = 7.00$ ,  $p = .010$ ,  $n^2 = .083$ , indicating that the treatment participants reported being happier, and that positive change occurred as a consequence of the intervention. Implications from the research are that a coping skills program can be successful in enhancing happiness levels, and it may be beneficial to include happiness indicators in government social policies. Results obtained increased the understanding of factors contributing to a healthy adjustment in the later years of life.

## CHAPTER ONE

### Study One: Literature Review

#### *The Problem*

Retirement from full-time paid employment is a defining moment that marks the beginning of a life transition. This requires adjustments in identity, thinking, feeling, and action. While the act of retiring is an event, adjustment to retirement is a process. Adjustment can pose a significant problem in that it requires change, and change either for better or for worse can be stressful. Change commands a new routine, which requires an entirely new repertoire for its reinforcement. With retirement losses are incurred, and these must be replaced in another way. Nevertheless, it appears that some people embrace this life transition optimistically, and perceive it as a welcome challenge and opportunity for happiness, while others view it pessimistically, perceive it as a crisis, and become stressed. At times this stress may become depression. Whether there is a difference between those who are negatively affected by retirement and those who are positively affected by retirement is of interest. If there is a difference, the question is then asked, what is this difference. Differences in demographics, particularly gender, and differences in the way people cope with retirement stress, may be predictors of depression or happiness in retirement. Perhaps happy retirees use different coping styles/strategies than depressed retirees.

As the traditional age in Australia for retirement is 65 years, this transition, which leads to the third stage of life, also brings issues of aging, such as (a) physical health, (b) mental-emotional health, (c) awareness of one's own and partner's mortality, (d) accommodation and housing, (e) safety, (f) transport, (g) financial security, (h) social isolation, and (i) opportunity for leisure. The United Nations (1999) recognized the value of older people, and the changes they face.

*International Year of Older Persons (1999).*

The United Nations declared 1999 the *International Year of Older Persons*. The Commonwealth Government of Australia, the Queensland Gold Coast City Council (GCCC), and the Australian Psychological Society (APS) considered it timely to acknowledge the *International Year of Older Persons* by directing attention to the issues of an aging population. The Commonwealth Government of Australia produced a *Strategy on Healthy Aging (2000)*; the Queensland Gold Coast City Council (GCCC) produced the *Older Persons' Strategy Plan (1999)*; and the APS produced a position paper, *Psychology and Aging: Contributions to the International Year of Older Persons (2000)*.

In response to these issues of aging, *The Healthy Aging Task Force* was endorsed by Commonwealth, State and Territory Ministers responsible for aging issues; and prepared a *Strategy on Healthy Aging (2000)* for Australia's aging population. The strategy outlined the need to plan ahead to meet the challenges of an increasing number of people who would be living longer. The Strategy's vision was a fair society, where all older people can lead satisfying and productive lives, which maximize their independence and well-being.

Projected demographic changes presented a resourcing challenge. Australia's population is aging as a result of sustained low fertility and increasing life expectancy. This means that the number of people about to reach retirement is increasing. Population projections estimate that by 2031 nearly a quarter of Australia's population will be aged over 65 (Australian Bureau of Statistics [ABS], 1999). Compared to current retirees, they will be healthier, better educated, more articulate and demanding for satisfaction of their needs for quality service delivery. Policy challenges recognized the need to provide opportunities, such as improving access to continuing education and employment, as well as encouraging positive public perceptions to

aging in order to break down stereotypes, such as undervaluing older people's ability to participate fully in, and contribute to, community life. The stage of old age is negatively caricatured as a time of mental and physical decline, leading to loss of independence and productivity. Older people make a significant contribution to the community through volunteer work and care giving. This contribution reduces the need for some government expenditure, and this financial saving is not readily perceived.

### *Local Demographics*

As participants for this research were drawn from the Gold Coast, it is relevant to consider local demographics. The GGCC Social Research Unit (1998, 2004) has compiled demographic analyses of older residents (55 years and older) living on the Gold Coast, using data collected from the 1996 National Census and the 2001 National Census (ABS). This analysis shows that over 23.9% of the City's population was made up of persons aged 55 years and over, compared with 21.2% in Queensland, and 22.2% for the whole of Australia (GGCC, 2004). In the age group 55 years and older, females outnumbered males (24.7% as compared to 23.1%), and the gap widened as age increased (GGCC, 2004). This is a reflection of the different life expectancy patterns for females compared to males.

The population of the Gold Coast City, along with national and international trends, is aging. By the year 2020 it is expected that the large population of "baby boomers" will have reached the age of 65. Now that "baby boomers" (born after World War II, from 1946 onwards) have begun to retire, the population is swelling with an older generation. The proportion of people aged 55 and over residing in this city is expected to increase from 23.9% of the population in 2001, to 31.7% in 2021 (GGCC, 2004). This increase is due to a decline in number of births, the large number of baby boomers' reaching this older stage of life, and an increasing life expectancy.

The latter may be attributed to advances in medical knowledge and technology, as well as adoption of a healthy lifestyle.

From the older population of 97,334 living in Gold Coast City, (a) 70,205 were married, (b) 20,242 were widows/widowers, (c) 11,436 were divorced, (d) 4,033 had never married and (e) 3,390 were separated (GGCC, 2004). The vast majority of older residents lived in private, owned or rented accommodation, and either alone or sharing with relatives, rather than in nursing homes or in cared accommodation (GGCC, 1998).

Despite the fact that income levels for the total number of usual residents in Gold Coast City were below the national average, the income for older residents was above the national average for the age group. The majority (75.7%) of the aged earned less than \$600 per week. However, many older people own considerable assets and these were not measured by the 2001 census (GGCC, 2004).

The Gold Coast City has a predominantly Anglo-Saxon derived, permanent, older population. The majority (59.5%) was born in Australia. Fifteen and a half percent were born overseas in a country where English is the main language. The remainder (12.5%) was born in countries where English is not the main language (GGCC, 2004).

*The GGCC Older Persons' Strategy 1998-2003 Plan* study was undertaken in the lead-up to the United Nations *International Year of Older Persons (1999)*. The goal was to have a strategy plan to ensure quality of life in a desirable and satisfying place for the ever-increasing older resident and holidaying population. The plan stated that many older Australians have recognized the Gold Coast as a desirable place to retire, and have relocated from the southern states and rural Queensland in increasing numbers.

Local issues that were identified emanated from the changes occurring with aging, and the degree to which these are accommodated by older persons, their environment, and those who support and care for them (GGCC, 2004). These issues included (a) physical and social infrastructure, (b) transport, (c) safety, (d) housing, (e) information, (f) medical support, and (g) resources. Emphasis is placed on the significance of good health in aging as fundamental to the quality of life of the individual, and the economic capacity of society to support the elderly. This plan is seen to fit into global, national, and local contexts, as it addresses the issue of health as a personal and community resource. The issues identified by the strategy plan study formed the basis of a Council policy on older persons that would optimize quality of life for this age group. While the above issues are principally related to infrastructure, there are also psychological issues to consider.

*The APS Position Paper on Psychology and Aging (2000)*

This paper, from the Australian Psychological Society (APS) addressed clinical concerns and life transitions in successful aging. Of concern is the emphasis in much psychological research and practice on medical deficits and general decline in aging. Ageism, the negative stereotyping of older persons, highlights these deficits and views older people as burdens on society, rather than as valuable resources capable of making a worthwhile contribution to society (APS, 2000). In regards to mental-emotional health, older persons presenting with psychological problems, such as depression, may be dismissed and wrongly diagnosed as an inevitable part of aging, and given medication, rather than psychiatric or psychological therapy.

Depression is one of the mental health problems in old age that can be helped by psychological intervention. The paper argues that with adequate resources, the optimizing of service provision, and use of effective coping strategies, people can live

productively through the adjustment process of key life transitions, such as retirement and aging (APS, 2000).

Data from the *1997 National Survey of Mental Health and Well-Being of Adults* (ABS, 1997) suggested that mental health problems decrease with age, with a prevalence of 6.1% in those aged 65 years and over. Depression is less common in older adults, and can be triggered by a stressful change in role, a life event such as retirement, or death of a loved one (APS, 2000). Risk factors that trigger depression can include (a) female gender, (b) social isolation, (c) loss of a partner or other significant person, (d) physical ill health, (e) disability, (f) chronic pain, (g) a past history of depression or (h) a family history of depression (APS, 2000).

Depression in older persons is responsive to medication combined with a range of psychosocial interventions, such as cognitive-behaviour therapies, other psychotherapies, social skills groups, exercise programs, and group discussions (Koder, Brodaty, & Anstey, 1996). These interventions need to be delivered within a warm empathic framework that takes account of age-related changes, such as physical and cognitive change. *The APS Position Paper on Psychology and Aging* concludes that recommendations, if implemented, would contribute positively to the quality of life of older persons by valuing diversity, combatting ageism and empowering older people to live satisfying lives, despite negative circumstances. Psychologists are encouraged to provide services to older people, and continue research in the field of aging. To facilitate the provision of these services, the APS Aging Interest Group held its first conference in 2005.

*The First APS and Aging Interest Group Conference (2005).*

The APS Psychology and Aging Interest Group held its first conference at Geelong, Victoria, in November 2005. A review of papers presented at this conference hinted that ageism may still exist to a worrisome degree, and that

psychologists still prefer to work with younger age groups. For example, Angus (2005) reported ageism as a threat to “aging well” in the 21<sup>st</sup> century. Gringart (2005) stated that scientific literature indicates that information-based campaigns by the government have not been successful. Instead he suggested that an effective strategy would be to incite positive attitudinal changes toward older adults by using cognitive dissonance manipulations, which would lead to an adjustment in attitude and behaviour. Empirical tests of interventions combining cognitive dissonance and information about abilities of older adults found this an effective strategy (Gringart, 2005).

Wells (2005) stated that previous research concerning pre-retirement education reported better outcomes for attendees after retirement than people who were non-attendees. The experience helped to encourage a positive attitude towards retirement. He cited the Healthy Retirement Project funded by the Victorian Health Promotion foundation, which found that most pre-retirement courses were short and covered only financial topics.

Bryant (2005) argued from his data that older people who seek medical help have a high prevalence of depression. Therefore, the general medical setting provides an avenue for psychological intervention in older people. Data from admission to aged care wards in hospitals in Melbourne, Victoria, showed that patients had a high prevalence of depression and anxiety symptoms. These symptoms tended to reduce in frequency and severity after a few months, despite the fact that most patients had not received psychological intervention. This trend suggests that the patients reduced their symptoms through their own effective coping and adaptive strategies to a stressful situation. This finding implies that an understanding of coping strategies can inform psychological intervention for the elderly.

Pachana (2005), the Chair of the APS Psychology and Aging Interest Group, recognized a shift in the research focus and public perception on aging. The shift was from a focus on deficits, such as disability and loss, to an emphasis on strengths, and how these can be used to maintain and extend functioning for as long as possible. For successful aging, Pachana (2005) viewed the main goal as the maintenance of good physical health, which has the added bonus of elevating psychological health. Pachana (2005) reported a secondary goal was to maintain social supports, hobbies and interests, in order to keep connected to others, as connection and support from others can insulate against depression. To assist with life transitions and to bolster mental health, Pachana (2005) recommended that the aged work on acquiring and maintaining a healthy self-esteem, and that psychologists become familiar with research that has practical implications for helping.

#### *Research into Retirement*

Retirement for the purposes of this study was regarded as the cessation of full-time paid work, or when people consider themselves to be retired, as in the case of those who have not been in the paid workforce, such as homemakers. In Australia, there are very few studies of the retirement transition. Nevertheless, adjustment to retirement has been a special interest for some psychologists. Research to date that has investigated adjustment to retirement includes studies by Sharpley, Gordon and Jacobs (1996), Sharpley and Layton (1998), Sharpley and Yardley (1999), Longhurst (2000), Klokiw (2003), and Chalip (2004).

Sharpley, Gordon and Jacobs (1996), as well as Sharpley and Layton (1998) found that a successful retirement usually included retiring voluntarily, rather than involuntarily. Of importance was that the retiree had experienced pre-retirement education that included a wider range of social, personal, health and relationship issues, rather than just good financial management.

Sharpley and Yardley (1999) found many studies on the effects of aging, however, few studies had been published on the particular relationship between the ability to withstand adversity and the psychological well-being of older persons. Since Australia's population is aging, Sharpley and Yardley (1999) recognized the need to ascertain what helps the aged population withstand adversity, which may occur through the onset of physical limitations, and major uncontrollable life change.

Sharpley and Yardley (1999) surveyed 129 people aged 65 to 80 years. They investigated the relationship between cognitive hardiness, explanatory style (optimistic and pessimistic), and depression-happiness. The latter was assessed via the *Depression Happiness Scale* (McGreal & Joseph, 1993), because this instrument allowed both happiness and depression to be assessed on the same scale. The authors reported this scale has a satisfactory internal consistency (.90), good convergent reliability, and concurrent and discriminant validity with the Beck Depression Inventory. Cognitive hardiness was assessed via Nowack's (1990) *Cognitive Hardiness Scale*. Nowack reported that this scale had an internal consistency of .83. Explanatory style (pessimistic and optimistic) was assessed via the *Explanatory Style Questionnaire* described by Peterson, Semmel, von Baeyer, Abramson, Metalsky and Seligman (1982).

The American Psychological Association dictionary (p. 429) defines cognitive hardiness as "an ability to adapt easily to unexpected changes combined with a sense of purpose in daily life and of personal control over what occurs in one's life. Hardiness dampens the effects of a stressful situation through information gathering, decisive actions, and learning from the experience."

Results revealed no significant differences between males' and females' depression scores, cognitive hardiness scores or explanatory style scores. The authors found that optimistic explanatory styles were not significantly associated with

depression-happiness, and there was only a weak association between pessimism and depression-happiness. Procedural difficulties may account for these findings as the explanatory style questionnaire is difficult to follow, and the low internal consistency reported (alpha for optimism was .69, and for pessimism it was .58), reflects variability in responses within subjects' questionnaires. In addition, a survey of only 129 people is a small sample from which to draw conclusions.

Although they found no significant correlation between depression-happiness and an optimistic explanatory style, they did find that while there was a significant relationship between depression-happiness and a pessimistic explanatory style, the strongest predictor of lower depression and higher happiness was cognitive hardiness. This means that the particular attitude a person has to events, and the ways in which he or she responds to these events and other stressful demands, can be a buffer against damaging effects. Nowack (1989) had also found that cognitive hardiness mediated between stress and illness by providing a buffer against depression.

The major influencing factors of Sharpley and Yardley's (1999) study were found to be confidence in one's ability to handle change and/or social interactions, belief in one's competence in general, and the receipt of personal meaning from one's involvement in activities. Overall, gender effects were investigated in an exploratory way to determine their presence as predictors of depression. There were no significant differences between male and female depression scores, cognitive hardiness scores, or explanatory style scores.

Sharpley and Yardley (1999) were also interested in investigating the kinds of attitudes and coping strategies that mentally "healthy" versus mentally "unhealthy" retirees reported in order to be happy in retirement. Therefore they asked several open ended questions concerning the coping strategies retirees used when confronted with stress, how successful they considered these strategies, and what advice they would

give to others about to retire. The retirees were classified as the depressed group and the happy group according to scores on the *Depression Happiness Scale* (McGreal & Joseph, 1993). The study found that the happy group used better coping strategies. Happy retirees were (a) active, (b) set goals, (c) kept a positive outlook, (d) maintained faith in God and prayed, (e) tried to keep healthy through good diet and exercise, (f) had a strategy for dealing with stress, (g) saw retirement as a challenge rather than a stressor, and (h) believed they were in control. The depressed group relied on back-up care, family contacts, and used passive strategies such as, (a) avoiding stressful events, (b) reducing their activities, (c) having no strategy for managing stress, and (d) being in denial about having any stress at all. Family contacts presented no new challenge, and left participants in their communication comfort zone, whereas social contact with others was a challenge and stressful. Sharpley and Yardley envisaged these findings would be useful for the planning of programs to prepare for retirement.

#### *Programs to prepare for retirement*

Longhurst (2000) in his *Retire 200* research aimed to differentiate the behaviours and activities of those who became happy, and those who became unhappy in retirement. His research with 200 retirees from Australia-wide showed that retirement issues could be managed through counselling, in which behavioural strategies were learned. He identified several factors that impacted on people in retirement. These factors were based on the adjustment period of significant change which included: (a) retirement related stress, anxiety and depression, (b) managing loss and grief, (c) spending extended time with one's partner, and (d) the consequent lack of opportunity for solitude. He argued that as the paid work force meets many needs, other ways of meeting these needs in retirement must be established. For example, these needs include the finding of a new identity that maintains self-esteem,

as well as living a balanced life of purposeful activity and leisure, which provides challenge, involvement, and connection with others.

Productive strategies for enjoying a long, happy retirement include maintaining close relationships and communicating effectively within these, through the use of appropriate assertiveness skills, resolving conflict, and contributing constructively. Regular exercise, a healthy diet and medical check-ups are most essential. Mental-emotional health needs to be maintained by dealing with and managing stress, anxiety, depression and loss (Longhurst, 2000). Having insufficient financial means for a comfortable lifestyle was one of the most powerful factors influencing retirement-based anxiety, depression or stress (Longhurst, 2000).

Maslow's theory (1954), the "Hierarchy of Needs", may explain the negative feelings stemming from losses incurred upon leaving the paid workforce for retirement. Maslow's theory proposed that basic needs had to be met before one could be motivated to satisfy higher ranking needs. Work fulfills many needs. For example, a salary can provide the basic needs of survival, such as food and accommodation, as well as buy comforts and leisure pursuits. The government taxes the salary to provide law and order, which give people a sense of security and safety. A feeling of belonging and the satisfaction of social needs can be experienced through interaction with colleagues and workmates, and working together towards a common purpose. Self-esteem is enhanced by the contribution one makes at work, and the receiving a salary, which has been earned. Some would even claim that work provided them with a means of reaching the pinnacle of self-actualization, the fulfillment of one's potential. Therefore, those who adjust more easily to retirement are more likely to be retirees who meet by other means, the needs previously met in the workforce. These include doing voluntary work, and finding a definite purpose for the remainder of their lives.

Klokiw (2003) investigated the effects of social interaction and belonging to a religious community as a means of coping in retirement, and its consequent effects on 370 retiree participants' depression-happiness levels. Klokiw used the *Depression Happiness Scale*, (McGreal & Joseph, 1993) and the *Coping Scale for Adults* (Frydenberg & Lewis, 1997). An intervention study was planned, and it was intended that the intervention study emerge from the significant findings of the first study, and extend these findings. However, Klokiw stated her results were inconclusive, and she attributed her non-significant results to the possibility respondents misinterpreted the survey questions. To reduce the possibility of misinterpretation, Klokiw should have run a pilot study to clarify any ambiguities.

Moreover, *The Australian Unity Well-being Index Survey 14.1* (Cummins, 2006) found that within an Australian context, spiritual and religious well-being makes only a minor contribution to overall well-being. A significant proportion of people stated that they do not have this dimension in their life. It was found that the spiritual/religious item in the index made no unique contribution to life as a whole.

Despite the fact that Klokiw found no significant difference between those retirees classified as happy and those retirees classified as depressed in their involvement in social activity and involvement in religious communities, she still investigated these effects further. With a group of 29 retirees, 14 male and 15 female, aged 60-80 years, she undertook an intervention that was based on the theories of human psychosocial development as proposed by Maslow, Erikson, and Adler, and questioned whether these theories were still relevant to retirees.

An intervention based on the results of non-significant outcomes rendered the results of her second study meaningless, and should have been challenged by her supervisor. Only an adhoc explanation of research findings was offered, and this is

insufficient, and also should have been challenged by her supervisor. The findings from the first study did not justify an intervention.

Klokiw's intervention was a psychoeducational program with weekly meetings of 90 minutes over five weeks, and which taught social skills as a coping strategy in retirement. Pre-test and post-test depression-happiness scores for the 29 participants divided into two groups, were compared, but a significant difference was not found. However, some participants did increase their scores, and the group judged the experience as beneficial. Klokiw stated that non-significant results might be due to the fact that society today has moved from the traditional sense of unity to value individualism, and also that retirees' pre-test scores, indicating higher levels of happiness rather than depression, may be due to living in the popular geographic area of the Gold Coast. However, national statistics show that only 6.1% of those aged 65 years and over are depressed (ABS, 1997). This national figure was lower than the 7% of 370 Gold Coast retirees shown to be depressed in Klokiw's first study. A total of only seven and a half hours meeting time was insufficient to achieve a significant outcome.

The intervention design (pre-test-post-test wait list control group) was flawed. Participants were assigned to one of two groups, with the second group being the wait list control group. Assignment was either by order of application or by individual preference. Since participant choice to either group was a possibility, random assignment was not followed. Both groups received the treatment, and a comparison was not made between the first group and the second group, the wait list control group, before the latter group also received the treatment. When only pre-test and post-test scores are compared, there can be too many rival hypotheses to infer the degree to which treatment is effective, and for this reason differences from pre-test to post-test are not recommended for statistical analyses (Heppner, Kivlighan, &

Wampold, 1999). In addition results from a total of 29 participants provide low statistical power.

Chalip (2004) investigated the links between activity, health, and well-being in retirement. Her first study, with 370 Gold Coast retirees aged 65 to 85, investigated the relationships among (a) physical activity, (b) the level of other activities, (c) perceived mental health, (d) perceived physical health, and (e) well-being. The study also investigated whether these variables contributed to successful adjustment in retirement. Chalip found that being physically active was associated with higher levels of mental-emotional health, as assessed by the *Depression Happiness Scale* (McGreal & Joseph, 1993). Her second study investigated the effects of a walking program over a six-week period on mental-emotional health for 26 sedentary retirees, 9 males and 17 females, aged 60 to 82. Only 26 participants is a low number, and thus results of the intervention have low statistical power. She used a reversal design divided into phases: baseline, reversal, or follow-up. Participants acted as their own controls, as Chalip thought the use of a wait list control group inappropriate. Findings suggested that the walking program positively affected participants' vitality, perception of their physical and mental health, as well as overall activity level and well-being.

A weakness of the study was that although an additional 42 retirees walked with the group, they could not be included as participants in the study, because they did not comply with the study's requirements, such as completing the daily questionnaires, or refraining from walking during the non-walking phase. Perhaps completion of questionnaires on a weekly, rather than a daily basis would be less tedious, and would have met with more compliance. Furthermore, the completion of questionnaires on a daily basis would produce a practice effect. Chalip recommended

that a walking program be included as a counselling strategy rather than just “talking therapy”.

However, there is a range of psychological variables, such as depression and coping skills, that may also influence the quality of retirement, as explored in following sections of this research.

### *Depression*

*The Diagnostic and Statistical Manual of Mental Disorders* 4<sup>th</sup> edition, TR, (2000) provides criteria by which clinical depression is assessed in interview.

Depression is diagnosed when one has a persistently down mood and/or loss of interest for two weeks or more, and is accompanied by poorer function in some important area such as relationships, inability to be engaged in useful work and health. In addition, one must have at least three symptoms from a list of seven symptoms. These include: (a) significant decrease or increase in appetite and/or weight, (b) insomnia (or excess sleep) nearly every day, (c) agitation and/or being slowed down, noticeable by others, (d) fatigue or loss of energy, (e) feelings of worthlessness or inappropriate guilt, (f) diminished ability to think or concentrate, and (g) recurrent thoughts of death or suicide.

Major depression is not an inevitable part of normal aging. Aging is not inherently problematic; it is a normal phase of the human life cycle. As with all age groups, the elderly experience life changes that can lead to temporary feelings of sadness. After the death of a spouse or other loved one, the elderly may feel the same symptoms as someone with major depression. However, if these symptoms persist past a reasonable grieving period, and continue to impair everyday functioning, this is not normal. Major depression is treatable and responds to antidepressant medication combined with psychotherapy (Layard, 2005). Psychotherapy alone can be effective for mild to moderate depression. It involves regular sessions with a therapist, where

problem areas in the person's life are explored in a way that helps the person see things in a more constructive and less pessimistic way, and learn more effective coping strategies (King, 2002).

For the purposes of this study, depression was defined as a mental state characterized by a pessimistic sense of inadequacy, a despondent lack of activity, and sad feelings of gloom (Webster, 1993). When depression is precipitated at retirement, it is regarded as reactive to loss, as one attempts to adjust to the many losses incurred. It is characterized by dysphoric mood, a disinterest in normal pleasures, and somatic symptoms, rather than major depression. These losses can include (a) loss of salary resulting in a less comfortable lifestyle, (b) loss of status, (c) loss of identity, (d) loss of confidence and self-esteem, (e) loss of regular contact with colleagues, (f) loss of a regulated life that requires organization and time management, and above all (g) a loss of purpose in life.

Risk factors associated with depression as outlined by Cheong (2000) include (a) stress, (b) marital status, (c) physical illness, (d) gender, and (e) age. Stress can be triggered by negative life events such as loss of employment, illness, lack of social support, and the numerous daily hassles. Depression is highest among the divorced, separated, or co-habiting persons. It is lowest among single and married persons.

The impact of age related physical decline might be a causative factor for depression. Also the elderly are prone to physical illness such as heart disease, and research indicates illness can trigger depression (APS Position Paper, 2000). The aged are also exposed to specific stressful events, such as death of spouse and friends. Females are much more at risk for depression than are males (Anstey & Luszcz, 2002).

People attempt to adjust to change and depression by using coping strategies. According to the specific situation their use may be functional or dysfunctional (Zeidner & Endler, 1996).

### *Coping*

The use of effective coping strategies may ameliorate the effects of stressors, or serve as a buffer between stressors and outcomes (Biegel, Sales & Schulz, 1991). Coping strategies were developed within the cognitive behavioural tradition. Lazarus and Folkman (1980) stated that “coping skills are the constantly changing cognitive and behavioural efforts of an individual, used to manage specific external and/or internal demands (stressors) that are appraised as taxing, or exceeding the resources of a person. Coping includes all purposeful attempts to manage stress, whatever their effectiveness; that is, they can be helpful or detrimental.” (Chapman & Kirby-Turner, 2005, p.115). These strategies may be classified as problem-focussed, emotion-focussed and avoidant focused (Zeidner, & Endler, 1996).

The American Psychological Association dictionary (2007) defines problem-focused coping, which is also called active coping, as “a type of COPING STRATEGY that is directed toward decreasing or eliminating stressors, for example, by generating possible solutions to a problem. The coping actions may be directed at the self, the environment, or both.” (p. 735). Problem-focused coping strategies are suitable for coping with controllable stresses, and are directed towards changing the source of stress (Carr, 2004).

Emotion-focused coping, which is also called passive coping, is defined as “a type of COPING STRATEGY that focuses on regulating negative emotional reactions to a stressor, as opposed to taking actions to change the stressor. Emotion-focused coping may include social withdrawal, disengagement, and acceptance of the situation” (American Psychological Association, 2007, p.327). Emotion-focused

coping strategies are appropriate for managing affective states associated with stresses over which one has no control, such as diagnosis of a terminal illness or grieving (Carr, 2004).

Avoidant coping strategies include escape avoidance and distancing. They are suitable for occasions when time-out from the stressor is required for one to gain the resources to confront the stress (Carr, 2004).

Of importance is that the same stressful event can have different reactions in different individuals, because of subjective interpretation of the event. One person may be absolutely miserable, whereas another, with the ability to transform adversity, may be minimally affected, indicating differences in coping style (Csikszentmihalyi, 1990).

Several instruments have been developed to evaluate general coping style or coping with specific situations. Carr (2004) reviewed instruments with moderate to good psychometric properties, and which all contain subscales to measure strategies for problem-focused coping, emotion-focused coping and avoidant-coping: (a) *The Functional Dimension of Coping Scale* (Ferguson & Cox, 1997), (b) *The Ways of Coping Questionnaire* (Folkman & Lazarus, 1988), (c) *The Coping Responses Inventory* (Moos, 1993), (d) *The Coping Orientation for Problem Experiences* (Carver, Scheier & Weintraub, 1989), and (e) *The Adolescent Coping Orientation for Problem Experiences* (Patterson & Mc Cubbin, 1987).

Frydenberg and Lewis (1997) conducted many studies in the area of coping. They based their research on Lazarus' (1984) view of coping as problem-focused and emotion-focused. Problem-focused strategies allow people to deal with the problem by planned problem solving, confrontative coping, accepting responsibility and

self-control. Emotion-focused strategies include seeking social support and positive reappraisal. The use of problem-focused strategies has been found to be more effective than emotion-focused strategies in adjusting better to life (Carr, 2004).

Frydenberg and Lewis (1997) used their *Coping Scale for Adults* instrument to discriminate between what they judged as non-productive or productive strategies. They found significant relationships among a number of undesired outcomes, such as stress, feeling overwhelmed, and low self-esteem, and the use of non-productive coping strategies. Frydenberg and Lewis also found a link, but less strong, between more positive outcomes and productive strategies. Of significance, they thus found support for other studies that show these links (for example, Evert, 1996; Goble, 1995; Lynham, 1996; & Spanjer, 1999). These findings have implications for adjustment to retirement, suggesting that the use of productive coping strategies/styles can steer one towards a healthy adjustment to retirement, and alternatively, the use of unproductive coping strategies can not only hinder adjustment, but also in some cases lead to depression (Johnston, 2003).

In one study, Frydenberg and Lewis (1997) investigated the relationship between workplace and coping responses of managers and non-managerial members of the community. Both sex and age were included as predictors of coping with stress. They used a definition of coping "...as constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). They found that males who used social action and humour coped better than women, who were more likely to declare they did not have the resources to cope. Age was shown to be a predictor of coping, with older adults using the least number of varied strategies. The reported usage of physical recreation was greater for the young.

Managers were more likely than non-managers to work hard and use social action as a means of coping.

Frydenberg and Lewis (2004) have conducted extensive research with adolescents, whom they say face a plethora of stressful problems, which have been found to contribute to an increased risk of emotional-social-cognitive difficulties, including depression. They found that programs that promote coping with normative stress delivered to the whole population, were effective for the prevention of social emotional difficulties. Frydenberg and Lewis advocated the need to implement programs that teach coping responses, which include optimism and problem-solving skills to enable the handling of problems and stressors. An important feature of these programs is the reduction of the use of non-productive coping skills.

Ben-Zur (2005) also adopted the definition of coping according to Lazarus et al. (1984) as representing behavioural and cognitive efforts to deal with stressful encounters. Ben-Zur's study of 510 adults assessed the pattern of associations among demographic variables, problem and emotion-focused coping, and distress. He found that there was a positive correlation between emotion-focused coping and distress, and a negative correlation between problem-focused coping and distress.

Besides coping strategies, the influence of demographic variables on depression-happiness has been investigated. Gender is the most likely of these variables to influence depression-happiness levels.

#### *Demographic variables influencing depression-happiness levels*

Demographic variables which may influence depression-happiness levels include (a) gender, (b) age, (c) ethnicity, (d) education, (e) income, and (f) marital status. However, overall, studies have shown that demographic variables are relatively weak predictors of depression-happiness levels (Watson, 2000). Since those high on emotional stability tend to be happier (Argyle, 2002), it is probable that happiness is

positively correlated with psychological variables rather than demographics in Westernised countries (Argyle, 2002). Despite the strong association between genes and happiness, events and circumstances still do have an influence, but the way people perceive the world is more important than objective circumstances. Most people are moderately happy, and thus, demographic factors tend to distinguish between people who are moderately happy and those who are very happy (Diener & Diener, 1996).

### *Gender differences*

Many studies have investigated gender differences in depression, and have shown that females are at greater risk for depression than males. However, while the causes are unclear, it appears that a complex interaction of genetic contributions, psychological factors, biological vulnerability and environmental factors must be considered.

In 1990, the American Psychological Association published its taskforce findings on depression among women in the USA. The findings regarding gender and depression referred to socioeconomic, biological, and emotional variables; women's personalities, cognitive styles, and lack of problem solving strategies. Post-traumatic stress stemming from physical or sexual abuse, was noted as one of the major contributing factors to depression; married women were more likely to be depressed, and the more children there were in the family, the greater was the frequency of reported depression (McGrath, Keita, Strickland & Russo, 1990).

Ruble (1993) pointed to sex-stereotypical socialization practices by caregivers, who have different expectations for girls and boys, as forerunners to gender differences in self-concept and vulnerability to depression in girls and boys. He claimed that girls are socialized to be passive, whereas boys are socialized to be assertive, and have more mastery over their feelings.

Nolen-Hoeksema's (1995) theory of women's increased vulnerability to depression is that women and men respond differently to depression. Women focus on negative emotions, whereas men use distraction, such as participating in or watching sport, as a coping strategy.

Hyde (2005) took a different view from the gender difference model, and proposed the similarities hypothesis, which asserted that males and females are similar on most, but not all psychological variables. She argued that over inflated claims of gender differences carry large costs in the workplace and in relationships.

Anstey and Luszcz (2002) in one study looked at participants' depression assessed over a period of three years. They found that women suffered more depression than men. However, men experienced a greater impact of depression. They also found a gender difference in involvement in activities away from home and social interaction, with women being more active in these than men, who prefer to stay at home and work on individual activities. Anstey and Luszcz's study (in press) on social networks, found that a key predictor of longevity was how these networks were comprised. For example, those who maintained supports outside the family were more likely to live longer. Emotional and practical support from social networks was shown to be a buffer against life's stressors. Those who used optimism, a sense of control and acceptance of their limitations without allowing these to dominate, lived longer.

### *Age*

Despite the fact that physical health and attractiveness decline with age, the aged adjust to the situation, and it has been found that older people are happier than younger (Argyle, 2001). However, the intensity of positive and negative affect becomes less common with age and experience (Seligman, 2002). Reports of well-being found that age did not account for much variance (Bradburn, 1969; Campbell, Converse, & Rodgers, 1976; and Diener, Suh, Lucas, & Smith, 1999).

### *Ethnicity*

International surveys have found that Britain, USA, Australia and Scandinavian countries score high on self-reported happiness (Argyle, 2001). However, ethnicity per se has no effect on happiness. The effect comes from other variables such as having a life with a sense of purpose, social support, religion and so on (Seligman, 2001); and differences in socio-political factors, such as living in a stable democracy devoid of civil unrest and military conflict (Triandis, 2000).

### *Education*

Education seems to have only a small direct impact on happiness. However, it does raise happiness indirectly through its impact on people's ability to learn, and earn enough money for a comfortable lifestyle (Layard, 2005).

### *Income*

In the past, economists and governments have at times assumed that human happiness can be measured by how much money people have. However, economists such as Layard have now become increasingly interested in evidence-based happiness research, as they believe the latter can provide significant insights for economic policy and economic theory (Layard, 2005).

Capitalism aims to boost the economy and relies on those who are unhappy with their situation and wish to improve it through buying taxable material goods. The improvement in happiness is only temporary, and soon the process is repeated. This process dispels the myth that money and possessing better and better material goods will provide long-term happiness. Generally, spending money produces only short-term positive feelings (Diener & Biswas-Diener, 2000). More materialistic people are less happy. Wealthy nations provide shortcuts to temporary happiness, through the opportunity to purchase bigger and better material goods, drugs, spectator sports and loveless sex (Seligman, 2001).

The findings on whether money makes people happy are contradictory. Chan & Joseph (2000) found that happiness, was less for those who rated financial success highly. Those most preoccupied with money are less happy, as also are the very poor. The rich are no happier than those on middle incomes (Argyle, 2001). However, Veenhoven (1995) stated that money enhances happiness for the very poor, as it can provide the basic needs of food, shelter, and clothes. Layard (2005) claimed that once subsistence income is guaranteed, making people happy rests on knowing what conditions generate happiness, how to cultivate them, and what to do differently.

### *Marriage*

Despite the fact that data from some studies showed that happiness is associated with a quality marriage (Seligman, 2001), other studies support another conclusion. It is important to note that it is the “quality” of marriage that contributes significantly to overall psychological well-being, rather than marriage per se (Glenn & Weaver, 1981). Lucas, Clark, Georgellis and Diener (2003) showed that the happiness derived from marriage tended to fade over time.

Many unhappy couples formerly remained in marriage for the sake of the children, for financial reasons, for religious reasons, or because it was socially unacceptable to divorce. Moreover, different cultures produce different outcomes for the demographic variable marital status. For example, unmarried individuals who cohabited were happier than married or single individuals in individualist cultures, suggesting that companionship is more important than social approval, but the opposite was true for collectivist cultures, suggesting that in these cultures social approval was a strong factor (Diener, Gohm, Suh, & Oishi, 2000).

There needs to be acknowledged the possibility of a confusion of cause and effect. Since those high on emotional stability tend to be happier, it is probable that happiness is positively correlated with psychological variables rather than

demographics in Westernized countries (Argyle, 2002). The way each married individual perceives the world is more important than objective circumstances. Gove, Style, and Hughes (1990) proposed that the relationship between marriage and well-being may be due to social selection. Persons with high levels of well-being are more likely to be selected into marriage and stay married, than persons with lower levels of well-being.

Horwitz, McLaughlin, and White (1998) argued that marriages have both positive and negative sides, and that the differences in the levels of these aspects have a stronger impact on mental health than the absolute levels of support or problems. They found in their study that married persons with more supportive spouses reported less depression, and those with less supportive spouses reported more depression. Similarly, Cummins (2006) claimed that low support from a relationship is worse than no support. In general, receiving a high level of support from any source enhances well-being. Cummins implied that people, who are in a relationship that is providing them with only a low level of support, might increase their well-being by separating from their partner.

There has been some debate over whether marriage still involves significant advantages. Glenn and Weaver (1988) seriously questioned whether the positive relationship between being married and reported happiness still existed. Their study, using General Social Surveys data, showed a steady decline in the positive relationship between being married and happiness, while at the same time these data indicated an increase in the happiness of never-married persons, particularly males, and married females were reporting lower levels of happiness. Glenn and Weaver (1988) concluded that the benefits of being married were declining due to societal changes, that have made it more advantageous to be single, than it was in the past. Cohabitation, close serial relationships, and sexual relations outside of marriage are

no longer stigmatized. Due to easy access to divorce, marriage no longer provides persons with the financial and emotional security that it once did. Since the Family Law Act (1975), allowing no fault divorce, divorces have increased. Moreover, the number of marriages has decreased (ABS, 1997).

Lee, Seccombe, and Sheehan (1991) replicated and extended the Glenn and Weaver (1988) study, by providing three more years' worth of data. This data showed additional support for the argument that never-married persons are experiencing higher levels of happiness than they were in the past. Females are more resilient than males under conditions of single living, probably because females form emotionally supportive social relationships outside a coupled relationship. Males are more likely to form friendship relationships based on shared activities, rather than emotional support. Widows have a level of well-being that lies above the normative range, despite the fact they are also generally on a low income, and not in paid employment. They also tend to be elderly and have health problems associated with their older age (Cummins, 2006).

Earlier studies showing an association between marriage and happiness were not done specifically with the elderly, but with younger age groups. Middle-aged people who do not have a partner are the most vulnerable to depression. The negative effects of not having a partner are maximal before the age of 55 years. Beyond that age, well-being tends to return towards the normative range. The reason for this recovery in older age is not certain. It may however be linked to the increased normality of living without a partner beyond 65 years (Cummins, 2006). Therefore an association between marriage and happiness was not expected for the over 65 years age group. Moreover, demographics as a whole have been shown to be weak predictors of depression-happiness levels (Watson, 2000).

## *Happiness*

### *Definition*

Happiness can mean different things for different people. Layard (2005, p.181) claimed that “mental health is central to overall happiness” and he defined happiness and unhappiness simply: “By happiness I mean feeling good, enjoying life and wanting the feeling to be maintained. By unhappiness I mean feeling bad and wishing things were different” (Layard, 2005, p.12). The American Psychological Association dictionary (2007, p.429) defined happiness as “an emotion of joy, gladness, satisfaction, and well-being.” Argyle (2001, p.222) perceived happiness as including “positive mood, satisfaction with life, and cognitions such as optimism and self-esteem”. His perception was based on research from social surveys, longitudinal studies, and “quasi-experimental” studies. Similarly Carr (2004, p.45) defined happiness as “a positive psychological state characterized by a high level of satisfaction with life, a high level of positive affect and a low level of negative affect.”

### *Measurement*

The most common means of measuring happiness is through surveying individuals using self-report instruments and using objective measures of income, health, and suicide from social indicators. Fordyce (1988) developed the simplest measure consisting of only two items and requiring only a minute to respond to the Likert type ten-point response format. However this measure is likely to be affected by response biases, as its questions are too obvious. For example, the questions are: (a) In general how happy or unhappy do you feel? and (b) On average what percentage of the time do you feel happy, or unhappy, or neutral? Better scales consist of many questions that encourage answers that are more indirect measures of happiness. In this way, cultural norms about expressing happiness are less liable to influence the answers.

Since that time, several valid and reliable scales that measure happiness have appeared. For example, the 29-item *Revised Oxford Happiness Inventory* (Argyle, 1989), the 25-item *Depression Happiness Scale* (Joseph & Lewis, 1998), and the 18-item well-being scale of the *Multidimensional Personality Questionnaire* (Lykken, 1999).

A more sophisticated method of measuring happiness is by brain monitoring, which has shown a direct connection between brain activity and mood (Layard, 2005). This involves encephalogram measurements, magnetic resonance imaging, or positron emission tomography (PET) where radioactive isotopes are put into the bloodstream, and then traced while people are shown pleasant or unpleasant pictures. The PET scanner records the corresponding changes in glucose usage in the brain through light patches in the photographs. The pleasant picture activates the left side of the brain, and the unpleasant picture activates the right side (Layard, 2005). Davidson (1992, 2000), from the University of Wisconsin has led this work. In his studies he measures activity in different parts of the brain by placing electrodes over the scalp and reading the electrical activity. These electroencephalogram measurements are then related to the feelings people report. More electrical activity in the left front of the brain is registered when people experience positive feelings, and more electrical activity in the right front of the brain is registered when people experience negative feelings.

### *Happiness Research*

The field of happiness research emerged in the 1960s in America, when organizations began including questions about happiness and satisfaction in their surveys. Since that time many relevant journals have been published, for example, the *Social Indicators Research* (1974), the *Journal of Happiness Research* (1999) and *Foundations of Hedonic Research* (1999). Research attempting to identify the factors that contribute to happiness has come to be known as “positive psychology” since the

latter moves the emphasis away from deficits, illness and cure, to strengths, health, well-being and prevention (Layard, 2005). The humanistic psychologist, Maslow, could be regarded as a distinguished ancestor of positive psychology. Researchers contributing vastly to positive psychology include Seligman, the forerunner of positive psychology (1990), who is best known for his work on optimism and positive interventions; as well as Diener, well known for his work on subjective well-being and what contributes to life satisfaction; and Lyubomirsky, who claimed that pursuing happiness is the goal of most people (2005). This pursuit may well be a worthwhile goal, but little scientific evidence exists in support of the enhancement of happiness levels. Nevertheless, to cater to the goal of the pursuit of happiness, self-help literature abounds in bookstores. However, most of this literature has limited grounding in scientific theory, and lacks empirical confirmation of effectiveness.

#### *Theoretical Perspectives*

The goal of pursuing happiness has its detractors, who take a pessimistic view of whether happiness levels can be raised. This pessimism rests firstly on the consideration of a genetically determined set-point or range for happiness, based on twin studies. A second consideration for pessimism stems from the literature on personality traits, which are believed to be consistent across situations and across the life span. Thus these traits may account for some of the stability of the set-point or range (McCrae & Costa, 1990). A third consideration arises from the idea of the “hedonic treadmill”. This idea proposes that any increases in happiness are only temporary, because humans adjust to new circumstances and very soon adapt to change (Kahneman, 1999). For example, lottery winners are initially ecstatic, but after about a year are no happier than they were before the win. Furthermore, accident victims, after time to adjust, are not as unhappy as would be expected. Similarly,

findings of small correlations between wealth and happiness provide further evidence for hedonic adaptation (Myers, 2000).

Thus, happiness is not completely within one's control, since genetics, differences in personality (which to a degree are genetically determined), and adaptation may partly account for individual differences in happiness, which comes from both heredity and the environment (Layard, 2005). Genes, although beyond an individual's control, provide a predisposition for how one will develop in response to the environment. That is, both genes and experience play a role in determining happiness levels (Layard, 2005).

The effect of the environment can be investigated through studies, which control for the effect of genes. The key evidence comes from studies of twins. Studies with monozygotic (identical) and dizygotic (non-identical) twins, raised together and apart, have shown that genetics is a predisposing factor in happiness. Lykken, a researcher at the University of Minnesota, released in 1996 the results of a study in which he investigated the role of genes in determining happiness. He collected data from about 4,000 sets of twins born in Minnesota between 1936 and 1955, and compared the results from monozygotic twins and dizygotic twins, reared together and apart. Assessment was done by the Tellegen *Multi-dimensional Personality Questionnaire* to measure well-being. He concluded that about 50 % of the variance in current happiness is due to genetic factors. Data from this study showed that monozygotic twins were close to each other in happiness with correlations of 0.44-0.53, while dizygotic twins were barely similar, with correlations of 0.08-0.13. Lykken concluded that 50 % of the variance in current happiness was due to genetic factors, since monozygotic twins adopted apart as young babies had similar happiness levels as monozygotic twins who grew up together. So if monozygotic twins were

more similar than dizygotic twins, it was not mainly because their experiences had been more similar, but because they had identical genetic structures.

Evidence shows that genetic factors may account for 50 % of the variance in major personality traits such as extraversion and neuroticism (Riemann, Angleitner, & Strelau, 1997). Extraversion is “a trait characterized by sociability and seeking excitement” and neuroticism is “a trait characterized by anxiety, depression and self-regulation difficulties” (Carr, 2004, p.200). Extraversion correlates about 0.70 with positive affectivity, while neuroticism correlates about 0.90 with negative affectivity (Watson, 2000, 2002). Studies of happiness show that happy and unhappy people have distinctive personality profiles (Diener, Suh, Lucas, & Smith, 1999). In Western cultures, happy people are extraverted, optimistic, have high self-esteem and an internal locus of control, whereas unhappy people tend to have high levels of neuroticism.

These considerations perhaps suggest that the goal of pursuing happiness is futile. However, the pessimistic view is balanced by an optimistic view, that despite limitations imposed by genetics and environmental factors that can't be controlled, there remains a certain percentage within which happiness levels can be raised.

The optimists do not accept that genes are necessarily destiny, because it seems people can influence happiness indirectly, by choosing the kinds of experiences and environments they have. In this way, the effects of genes could be minimized through active efforts to avoid situations and maladaptive behaviours that detract from happiness (Lyubomirsky, 2001).

Thus there appears to be a paradox. A pessimistic theoretical perspective, with empirical data, implies that happiness levels cannot be raised, whereas an optimistic theoretical perspective, also with empirical data, suggests that happiness levels can be raised.

To resolve this paradox, Lyubomirsky, Sheldon and Schkade (2005) proposed a model claiming that chronic happiness is affected by three factors: a genetically determined set-point for happiness, happiness-relevant circumstantial factors, and happiness-relevant activities and practices. They argue that the best route to higher and sustainable levels of happiness is via intentional activities.

Existing evidence suggests that genetics, assumed to be fixed, stable over time and not within a person's control, account for approximately 50% of the population variation (Lykken & Tellegen, 1996), while circumstances account for approximately 10% (Argyle, 1999; Diener, Suh, Lucas, & Smith, 1999). There remains about 40% of the variance for intentional activities, over which a person does have control.

Thus, it follows that happiness can be increased, but not by changing one's set-point, which is constant, but by adjusting to genetic limitations, changing what happiness-relevant circumstances can be changed, and working on the nongenetic factors such as happiness-relevant activities (Carr, 2004).

However, following any positive happiness-relevant circumstantial change, hedonic adaptation may compromise this change, and return the person to the original baseline of happiness level. Sheldon and Lyubomirsky (2004) found that positive circumstantial-based change was temporary. For example, Lucas, Clark, Georgellis, and Diener (2003) showed that the happiness derived from marrying tended to fade over time. Similarly, relocating, increasing one's income and buying a new car, provide temporary boosts in happiness. Thus, changes in circumstances have only limited potential for making sustainable gains in happiness.

Intentional activity provides the best opportunity for changing one's happiness level. This category includes what people choose to think and do in their daily lives. This category contrasts with the category of circumstances, in that the latter can "happen" to people, and activities are ways that people "act" on their circumstances.

What people think and do refers to cognitive and behavioural activity which has been shown to influence well-being, for example, reframing unhelpful negative cognitions into positive ones (Emmons & McCullough, 2003; King, 2001), and exercising regularly (Chalip, 2004). Lyubomirsky, Sheldon and Schade (2005) found that activity-based happiness change lasted. It would appear that activity-based changes in happiness level are characterized by less hedonic adaptation than circumstantial-based changes, possibly because activities are episodic and transient. It also appears important that constant and repeated routine, which could become boring, needs to be varied to counteract adaptation.

Cognitive activity offers possibilities for happiness interventions (Fordyce, 1983). Research in the positive psychology tradition has demonstrated that practising certain cognitive virtues such as gratitude (Emmons & McCullough, 2003), forgiveness (McCullough, Pargament, & Thoresen, 2000), and thoughtful self-reflection (King, 2001) can enhance positive moods. Happy people tend to live in a peaceful, stable democracy, with enough income to provide for basic needs and comforts. They enjoy close relationships and communicate effectively. Their high self-esteem, healthy lifestyle, sense of purpose and the use of constructive coping strategies allow them to manage their daily lives well (Seligman, 2002). In essence, happy people remain physically, mentally and socially active.

### *Research studies*

#### *Longevity*

The longevity of happy people may be due to the influence of happiness on health, through its effects on the immune system. The immune systems of happy people work better than those of unhappy people (Kamen-Siegel, Rodin, Seligman, & Dwyer, 1991; Segerstrom, Taylor, Kemeny, & Fahey, J, 1998; Stone, Neale, Cox, Napoli, et al., 1994). However, there needs to be acknowledged the possibility of a

confusion of cause and effect. Understandably, it is possible that unhealthy people are less happy. It is also important to consider the type of illness, whether terminal, over which there is no hope of recovery and also beyond the sufferer's control, or temporary, and within the person's control to recover from or manage.

Several longitudinal studies have revealed the effect that happiness has on longevity. For example, in a study with 180 nuns, all unmarried teachers who led a healthy and similar routine lifestyle, Danner, Snowden, and Friesen (2001) found that happiness was associated with longevity. The study minimized usual confounds, because the nuns were all unmarried teachers, who led similar healthy and routine lifestyles in the same economic and social class, with the same access to care. Upon entrance to convents, nuns wrote their autobiographies including expectations for their futures. Fifty years later, trained raters, unaware of how long the nuns had lived, assessed the number of positive emotions expressed in each story, and found that those who lived past 85 years of age represented 90 % of the happiest quarter, compared with only 34 % of the least happy quarter. Eight hundred patients, who had attended a clinic 40 years earlier, and had completed an assessment at intake revealing either a pessimistic or optimistic outlook, were investigated in a follow-back study by Maruuta, Colligan, Malinchoc, and Offord, (2000). At the time of the investigation 200 of these patients had died. The study found that optimists showed 19 % greater longevity than pessimists.

### *Problem Solving*

Mood can influence how people go about problem solving. When happy, they are more helpful, cooperative and productive. When unhappy, they are more critical, analytical and less productive. Isen and Geva (1987) observed that after watching a neutral film 20 % of people were able to solve a problem within 10 minutes. However, after watching a comedy and feeling the effects of pleasant mood

inducement, 75 % of people solved a problem within 10 minutes. This could be due to the observation that people feeling in a pleasant mood follow a short-cut route, whereas people in a neutral or negative mood take longer to process information (Petty & Cacioppo, 1986).

### *Overview*

The United Nations declared *The International Year of Older Persons* in 1999. This declaration was a precursor to a review of aging population issues by Australian Commonwealth, State and Local Governments, as well as by professional associations. This declaration was also the catalyst for this research.

For some people, moving from full-time employment to retirement can be a stressful life transition requiring adaptation to change. Retirees face issues of aging, health, an awareness of their mortality, as well as the necessity to adjust to complex socio-economic interactions that may adversely affect their future lifestyle. Some face this change optimistically as a challenge, while others perceive it as a crisis, which can lead to depression. Of interest, is how these different transitional responses can be assessed, and whether happy retirees have different coping strategies than those exhibiting depression.

Demographic analysis shows that the number of people about to retire is increasing, and that retirees are (a) living longer, (b) healthier, (c) better educated, (d) more assertive and (e) more demanding of quality services to meet their needs. Regarding retirees in Australia 65 years and over, females outnumber males, and the gap widens as age increases. This reflects national life expectancy patterns. Most retirees are married. Most live in private accommodation and earn less than \$600.00 per week. The declining birthrate and retirement of the post World War II “baby boomers” indicates that the proportion of Gold Coast City population aged 55 and over will increase to 31.7% by 2021. The challenge now facing governments is the

need for policy that meets the economic and social requirements of an expanding elderly population, and that counters the negative characterization of the elderly as an unproductive group in decline.

The Australian Psychological Society (2000) addressed the issue of aging. It argued that with adequate resources and coping strategies, people can live effectively through key life transitions. While Australian psychologists have undertaken few studies of the retirement transition, it has been of special interest to some. A common finding in retirement studies was the need for productive strategies, so that retirees could maintain close relationships, communicate effectively, resolve conflicts, and contribute to society. Research also indicates that strategies are required to deal with (a) stress, (b) anxiety, depression and loss, (c) regular exercise, (d) a healthy diet and (e) regular medical check-ups. Professional financial advice is essential, as insufficient financial means was a most powerful factor influencing retirement based anxiety, depression and stress. To cope, we either change the situation or how we respond to it. Productive coping strategies can steer one towards healthy adjustment, while unproductive strategies can hinder adjustment and lead to depression.

Overall, demographic variables are weak predictors of happiness (Watson, 2000). The way people perceive the world appears more important than objective circumstances. Happiness can be increased, but not by changing one's set-point, which is constant, but by adjusting to genetic limitations, changing what happiness-relevant circumstances can be changed, and working on the nongenetic factors such as happiness-relevant activities (Carr, 2004).

Happy people tend to live in a peaceful, stable democracy, with enough income to provide for basic needs and comforts. They enjoy close relationships and communicate effectively. Their high self-esteem, healthy lifestyle, sense of purpose and the use of constructive coping strategies allow them to manage their daily lives

well (Seligman, 2002). In essence, happy people remain physically, mentally and socially active.

### *Rationale and hypotheses for Study One*

A review of the literature suggested that depression is not an inevitable part of normal aging (Pachana, 2005). Retirees can insulate themselves against stress and depression, as well as enhance their happiness levels through intentional activities and the use of effective coping strategies. The aim of Study One was to determine whether demographics, involvement in activities, and use of coping strategies/styles significantly influenced depression-happiness levels. Therefore to investigate the factors that may contribute to a successful transition to retirement, hypotheses were formulated in line with previous research and findings, described earlier and below.

Most people are moderately happy, and thus, demographic factors tend to distinguish only between people who are moderately happy and those who are very happy (Diener & Diener, 1996). Overall, demographics have been found to be weak predictors of depression-happiness levels (Watson, 2000). Factors such as wealth, education, age and ethnicity have only circumstantial influence on happiness, as they account for no more than 10 to 15% of the variable quotient (Ricard, 2006).

Reports of well-being found that age did not account for much variance (Bradburn, 1969; Campbell, Converse & Rodgers, 1976; Diener, Suh, Lucas, & Smith, 1999). Moreover, this variance is reduced for the elderly.

Ethnicity per se has no effect on happiness. The effect comes from other variables (Seligman, 2001), and differences in socio-political factors, such as living in a stable democracy devoid of civil unrest and military conflict (Triandis, 2000).

Education appears to have only a small direct impact on happiness (Layard, 2005). The implication is that education can open the door to a more satisfying occupation that provides a more comfortable life.

Income enhances happiness only for the very poor, in that it can provide the basic needs of food, shelter, and clothes (Layard, 2005; Veenhoven, 1995). More materialistic people are less happy (Seligman, 2001). Spending money produces only short-term positive feelings (Diener & Biswas-Diener, 2000), because humans adjust to new circumstances, and very soon adapt to change (Kahneman, 1999; Myers, 2000).

Studies have shown that it is the “quality” of marriage, rather than marriage per se, which contributes significantly to overall psychological well-being (Glenn & Weaver, 1988; Lee, Seccombe, & Sheehan, 1991). Glenn and Weaver’s data showed a steady decline in the positive relationship between being married and happiness. The negative effects of not having a partner are maximal before the age of 55 years. Beyond that age, well-being tends to return towards the normative range. The reason for this recovery in older age may be linked to the increased normality of living without a partner beyond 65 years (Cummins, 2006). Therefore an association between marriage and happiness was not expected for the participants in Study One, as they were all aged 65 years and over. Thus it was hypothesized:

Hypothesis 1: It is expected that the demographics (a) age (b) ethnicity (c) education (d) income and (e) marital status will not significantly influence depression-happiness levels, as measured by the *Depression Happiness Scale* (McGreal & Joseph, 1993).

The link between working on happiness-relevant activities and well-being has been firmly established by the literature (Carr, 2004; Koder, Brodaty, & Anstey, 1996; Lyubomirsky, Sheldon, & Schade, 2005). Involvement in activities can provide a buffer against depression (Longhurst, 2000; Sharpley & Yardley, 1999). Thus it was hypothesized:

Hypothesis 2: Retirees who involve themselves in activities, will report being significantly happier than those who do not involve themselves in activities.

Many studies have investigated gender differences in depression, and have shown that females are at greater risk for depression than males (Ruble, 1993; Nolen-Hoeksema, 1995; Australian Psychological Society, 2000; Anstey & Luszcz, 2002; Kornstein, 2003). Males have more mastery over their feelings (Ruble, 1993). Males use more problem-focused strategies, and females use more emotion-focused strategies. The use of problem-focused strategies has been found to be more effective than emotion-focused strategies in dealing with stressors and adjusting better to life (Carr, 2004). Ben-Zur (2005) in his study with 510 participants assessed the association between problem-focused and emotion-focused coping and distress. He found there was a positive correlation between emotion-focused coping and psychological distress such as depression, and a negative correlation between problem-focused coping and distress. Thus it was hypothesized:

Hypothesis 3: Female retirees will report being significantly more depressed than male retirees.

Hypotheses 4, 5, and 6 refer to gender differences in the use of coping strategies/styles as assessed by three instruments, which measure different aspects of coping: the use of pro-active strategies vs passive coping strategies (*Coping Strategies for Adjustment to Retirement*), the use of positive cognitions vs negative cognitions (cognitive coping subscale from the *Stress Assessment Inventory*), and the use of a productive vs an unproductive coping style (*Coping Scale for Adults*). Studies that examined relationships among gender, types of coping strategies, and psychological well-being have found that when confronted with stress, males use more effective coping strategies than females (Borden & Berlin, 1990; Vingerhoets & Van Heck, 1990). For example, women focus on negative emotions such as worry, self-blame

and wishful thinking, whereas men use more positive thinking and action (Frydenberg & Lewis, 1997; Nolen-Hoeksema, 1995). Nowack (1990) found that responses to the *Stress Assessment Inventory* revealed that negative thoughts contributed significantly to predictions of psychological stress, such as depression. As females have been shown to be more depressed than males (Hoeksema, 1995), it follows that females can be expected to use fewer effective coping strategies than males. Thus it was hypothesized:

Hypothesis 4: Male retirees will report using significantly more pro-active coping strategies than female retirees, as measured by the *Coping Scale for Adjustment to Retirement Questionnaire* (Chalip, Glenn Goold, Klokiw, & Russell, 1999).

Hypothesis 5: Male retirees will report using significantly more positive cognitive coping strategies than females, as measured by the cognitive coping subscale of the *Stress Assessment Inventory* (Nowack, 1990).

Hypothesis 6: Male retirees will report using a significantly more productive coping style than female retirees, as measured by the *Coping Scale for Adults* (Frydenberg & Lewis, 1997).

Hypotheses 7, 8, and 9 refer to the link between the use of effective coping strategies and happiness. With the use of effective coping strategies people can live through the adjustment process of key life transitions, such as retirement and aging (Australian Psychological Society, 2000; Longhurst, 2000). There is an association between the use of constructive coping and positive outcomes (Frydenberg & Lewis, 1997). The development of the *Coping Scale for Adjustment to Retirement Questionnaire* emerged from the findings of the Sharpley and Yardley study (1999), which found that happy retirees used more pro-active strategies than depressed retirees, who relied more on passive strategies. Nowack's study (1990) found an

association between positive thinking and happiness, and an association between negative thinking and depression. Frydenberg and Lewis (1997) used their *Coping Scale for Adults* instrument to discriminate between what they judged as non-productive or productive strategies. They found significant relationships among a number of undesired outcomes, such as stress, and the use of non-productive coping strategies. Frydenberg and Lewis also found a link, but less strong, between more positive outcomes and productive strategies. Of significance, they thus found support for other studies that show these links (for example, Evert, 1996; Goble, 1995; Lynham, 1996; and Spanjer, 1999).

These findings have implications for adjustment to retirement, suggesting that the use of productive coping strategies/styles can steer one towards a healthy adjustment to retirement, and alternatively, the use of unproductive coping strategies can not only hinder adjustment but also in some cases lead to depression (Johnston, 2003). Thus it was hypothesized:

Hypothesis 7: Those retirees who use more pro-active strategies, as measured by the *Coping Scale for Adjustment to Retirement Questionnaire* (Chalip, Glenn Goold, Klokiw, & Russell, 1999) will report being significantly happier.

Hypothesis 8: Those retirees who use more positive cognitive coping strategies, as measured by the cognitive coping subscale of the *Stress Assessment Inventory* (Nowack, 1990) will report being significantly happier.

Hypothesis 9: Those retirees who use a more productive style of coping, as measured by the *Coping Scale for Adults* (Frydenberg & Lewis, 1997) will report being significantly happier.

## CHAPTER TWO

### Study One: Method

#### *Participants*

Participants eligible for inclusion in the study were Gold Coast residents, 65 to 85 years of age, retired from full-time paid work, and living independently. Living independently meant that they required no assistance with normal daily living such as feeding, bathing and simple chores. No ceiling was placed on the number of eligible participants that would be accepted for inclusion in this study. Age 65 was chosen as the minimum age for inclusion, as at the time this study began, this was the normal age for retirement recognized by the government. However, this age was recently reduced to 60. Males become eligible for the aged pension at 65 years. It is acknowledged that some people, such as those in the military, retire early. However, interviews have found that the vast majority of these retirees re-enter the workforce, to retire again at around the minimum age selected for this study.

Three hundred and seventy participants met the criteria and provided useable data for this study. There were 157 (42.5%) males, and 212 females (57.5%). One person did not record data for gender. Ages of potential participants ranged from 65 to 85 years ( $M = 72.3$  years,  $SD = 4.9$  years).

#### *Design*

This study was a passive research design, because it examined the relationship between already existing variables and no treatment was given (Heppner, Kivlighan, & Wampold, 1999).

### *Materials*

Materials for Study One included advertising notices, flyers, a telephone script, a logbook for recording details of those who contacted the voicemail, and a participants' package. These materials appear in Appendix B.

A research team of four graduate students (Chalip, Glenn Goold, Klokiw, & Russell) developed a participants' package, which was sent or distributed to interested and eligible volunteers. The survey package included an explanatory letter, a pre-paid addressed envelope, and a list of survey contents. The survey included (a) a questionnaire seeking background information to obtain demographic data, (b) a questionnaire (questionnaire 5) seeking information on the kinds of activities in which retirees were involved, (c) four measurement instruments, one of which measured participants' depression-happiness levels (questionnaire 2), and (d) three instruments (questionnaires 1, 3, and 4) which measured participants' use of coping strategies/styles, when confronted by stress in retirement. The survey package appears in Appendix B.

### *Background Information*

The survey sought demographic data for (a) gender, (b) year of birth, (c) country of birth, (d) number of years living in Australia, (e) languages spoken, (f) current marital status, (g) current living arrangement, (h) current income, (i) source of income, (j) income in the year before retirement, (k) highest level of education achieved, (l) former occupation, (m) single main reason for retirement, (n) number of years retired, (o) self perception of physical, and (p) mental/emotional health over the last six months.

Questionnaire 5 sought information on the kinds of activities in which participants were involved. Responses indicating participants' primary activity were

placed into categories as identified by Ross and Drentea (1998). These categories were (a) working, (b) socializing, (c) belonging to a purpose group or organization, and (d) pursuing an interest.

Through consensus, the research team divided each of these categories into the following subcategories: (a) pursuing an interest (physical, mental, spiritual), (b) working (paid part-time work, property maintenance, care-taking duties, community work), (c) belonging to an organization (seniors' groups, religious/spiritual, sport and/or service club), and (d) socializing with family, and with friends.

*The four measurement instruments:*

(a) Questionnaire 1: *The Coping Strategies for Adjustment to Retirement*

*Questionnaire* (CSARQ), (Chalip, Glenn Goold, Klokiw, Russell, & Sharpley, 1999).

(b) Questionnaire 2: *The Depression Happiness Scale* (DHS), (McGreal & Joseph, 1993).

(c) Questionnaire 3: Cognitive coping subscale from the *Stress Assessment Inventory* (SAI), (Nowack, 1990).

(d) Questionnaire 4: *Coping Scale for Adults* (CSA), (Frydenberg & Lewis, 1997).

All of the above instruments, which appear in Appendix B are self-report, paper and pencil, Likert style inventories. To counter agreement response set, some items are worded positively, and some are worded negatively. Relevant items were reverse scored. Questionnaire 1 was developed specifically to be used for the first time in Study One. Questionnaires 2, 3, and 4 are published inventories, which are psychometrically sound.

Researchers such as Sandvick, Diener, and Seidlitz (1993) found that self-report measures converge with other types of assessment, such as expert ratings based

on interviews with participants, as well as reports from family and friends, and are therefore valid. The fact that self-reported depression-happiness is subjective does not mean that it is unrelated to relatively more “objective” variables. For example, research has shown significant convergence of self-reported well-being with peer reports of well-being (Lyubomirsky & Lepper, 1999; Sandvick, Diener, & Seidlitz, 1993), with memory of specific kinds of events (Seidlitz, Wyer, & Diener, 1997), with smiling behaviour, and with physiological responses (Harker & Keltner, 2001).

The authors of published inventories, such as the *Depression Happiness Scale*, the *Stress Assessment Inventory* and the *Coping Scale for Adults*, generally conduct a substantial amount of research on them through reliability and validity studies, as well as normative data. The self-report validity issue has its detractors, such as staunch behaviourists, and may remain unresolved. Disadvantages of self-report include vulnerability to distortion by the respondent, but the latter may not be aware of the construct being measured. In addition, self-report of such constructs as depression-happiness is more important than other indicants of this type of construct, such as therapist ratings of client change, behavioural observations, physiological measures, or other measures that use a locus other than the self.

In Study One conditions were designed to minimize response bias, and maximize response accuracy, as participants had nothing to gain by creating either a positive or a negative impression. Because of anonymity, fear of evaluation was not a factor. The advantages of self-report, which is used widely in counselling research, include that it is economical in terms of cost and time, and is relatively easy to administer. It can access sensitive information, such as questions on income. It can assess private cognitions, feelings and behaviour in private settings. This access is valuable when measuring certain constructs such as depression-happiness, a

subjective condition that requires indirect measurement. Objective personality measurement, such as ratings by expert judges and behaviour assessment, cannot intrude into a person's own unique inner state of feelings and thoughts. Internal variables, such as attitudes, make a much larger contribution to depression-happiness than external variables, such as consumerism. Quantitative self reporting, as in the Likert scale, (relevant to all instruments used in Study One), is scored objectively, with no room for ambiguity or markers' misinterpretation, thus minimizing error variance by the scoring procedure.

Therefore the use of self-report inventories was considered acceptable for the purposes of Study One. Three coping instruments (*Coping Scale for Adjustment to Retirement Questionnaire*, *Stress Assessment Inventory*, *Coping Scale for Adults*) were used to give insight into different aspects of coping: the cognitive, affective, behavioural, and psychosocial.

*Questionnaire 1: Coping Scale for Adjustment to Retirement Questionnaire (CSARQ)*

The *CSARQ* was developed in 1999 by Chalip, Glenn Goold, Klokiw, Russell and Sharpley. It is a paper and pencil test of coping strategies, which stems from responses to the open-ended questionnaire in a previous study by Sharpley and Yardley (1999). In their study, 129 retired participants were asked to write down what coping strategies they would recommend to retirees to use in retirement. Sharpley categorized these recommendations through content analysis into ten strategies: (a) avoid stress, (b) set goals, (c) keep active, (d) have a positive outlook, (e) maintain family contacts, (f) believe in God and pray, (g) exercise, (h) enlist back-up care, (i) deny the existence of stress, and (j) use no strategies.

The *CSARQ* in the current study aimed to measure these ten strategies. Three of these strategies were considered passive (deny the existence of stress, rely on back up care, and use no strategies), while the other seven strategies were considered pro-active. It was intended to test the exploratory question whether the use of more pro-active strategies would impact positively on coping with stress, and thus lead to more happiness, and whether the use of more passive strategies would impact negatively on coping with stress, and thus lead to more depression.

According to the procedures developed by Sudman and Bradman (1982), as well as Lazarus and Folkman (1984), the cognitive, affective and behavioural components of the ten strategies were assessed by thirty items, comprising ten affective, ten cognitive, and ten behavioural items. To create a focus on each strategy, the three components of each were made sequential. To illustrate, the three components of the strategy “exercise” are: (a) “I believe regular exercise does contribute to a healthy lifestyle” (cognitive component), (b) “I feel exhilarated after a pleasant walk” (affective component), and (c) “I exercise regularly” (behavioural component). A seven-point Likert scale response format was used, where 1 = completely agree, 2 = moderately agree, 3 = slightly agree, 4 = undecided, 5 = slightly disagree, 6 = moderately disagree, and 7 = completely disagree. Thus there was both a polarity component (agree or disagree) and an intensity component (degree of agreement or disagreement). Items were reverse scored where relevant, and possible scores ranged from 7 to 210.

The *CSARQ* showed suitable internal consistency reliability: Cronbach’s alpha = 0.81 (N = 370). The student research team for this study reviewed the items of the questionnaire and, following reworking of the initial items, the team agreed that

the items had strong face validity and could be included in the questionnaire. The questionnaire appears in Appendix B.

*Questionnaire 2: The Depression Happiness Scale (DHS)*

The *DHS* was developed by McGreal and Joseph (1993) to measure a continuum of affect, to be used in survey research with the general population. The authors perceived depression and happiness as opposite ends of a single continuum describing mood swings. They thought of depression as shading naturally into normal unhappiness, which in turn shades into happiness. The authors found that a continuous bipolar measure of depression-happiness was better able to capture the range of individual response within a normal population, than a unipolar measure such as the *Beck Depression Inventory (BDI)* developed by Beck, Mendelson, Mock, and Erbaugh (1961).

The *DHS* has satisfactory internal consistency (.90), and good convergent reliability (Joseph, Lewis, & Olsen, 1996). Compared with the *BDI*, the *DHS* has concurrent and discriminate validity (McGreal & Joseph, 1993).

The authors conducted a study in which they administered the *BDI*, which measures depression alone. Two hundred university students were selected on the basis that their scores on the *BDI* fell within the range expected for the normal population. These students then completed a 40-item (20 depression items and 20 happiness items) questionnaire, which attempted to tap feelings of depression and happiness. Using factor analytic data, the authors then selected the 25 highest loading items to include in a bipolar depression-happiness scale. This device was judged as suitable for use in this study, because participants were drawn from the non-clinical population. McGreal and Joseph (1993) reported that all 25 items loaded onto a single factor at 0.5 or higher. This indicates high internal consistency. Also, they reported a

correlation with the *BDI* of -0.73, indicating convergent validity. Higher scores on the *DHS* were associated with lower scores on the *BDI*. These findings were supported by other studies: Joseph, Lewis, and Olsen (1996); Sharpley and Yardley (1999); and Walsh, Joseph and Lewis (1995).

In Study One, Cronbach's alpha for the *DHS* was 0.69,  $N = 370$ . Of the 25 items comprising the *DHS*, 12 are concerned with positive thoughts and feelings, indicating happiness, and 13 items are concerned with negative thoughts and feelings, indicating depression. The response format is a four-point Likert scale where 0 = never, 1 = rarely, 2 = sometimes, and 3 = often. Scoring ranges from 25 to 100, with lower scores indicating greater depression, and higher scores indicating greater happiness. Participants are required to rate the frequency over the previous seven days that they had experienced each of the 25 items. Relevant items were reverse scored. The *DHS* appears in Appendix B.

*Questionnaire3: Cognitive Coping Style subscale from the Stress Assessment Inventory (SAI)*

The *SAI* (Nowack, 1990) was designed to assess employee stress and health risk behaviour, within organizational health promotion and wellness programs. The initial analysis of this inventory identified three major factors that had eigenvalues greater than or equal to 1.0 and accounted for 60.1% of the total variance.

Factor 1 represents the behavioural health habits, and consists of four sub-scales: exercise, sleep/relaxation, eating/nutrition, and preventative hygiene. Factor 2 represents cognitive and behavioural resistance resources such as social support, cognitive hardiness, and coping style. Factor 3 represents the aversive cognitive and behavioural scales, which include stress, Type A behavior, and intrusive/negative thoughts.

The 123-item *SAI* comprises a total of 15 valid and reliable subscales:

(a) Stress, (b) Global Health Practices, (c) Exercise, (d) Sleep/Relaxation, (e) Preventive Hygiene, (f) Nutrition/Eating, (g) Social Support, (h) Type A Behaviour, (i) Cognitive Hardiness, (j) Cognitive Coping (Positive Thoughts and Negative Thoughts), (k) Avoidance, (l) Problem-Focused Coping, (m) Psychological Well-Being, (n) Global Coping Index and (o) Response bias. Each scale is discrete, and thus can be used alone without affecting validity and reliability (Nowack, 1990).

The instrument has shown criterion-related validity with both physical and psychological health outcomes in a study by Nowack (1990) with 194 employees working in several large companies. The average internal consistent reliability (Cronbach's alpha) across all scales was .76 with a range from .67 to .93. Both stability and consistency results obtained have proved satisfactory. Responses to the Cognitive Coping subscale showed that negative thoughts contributed significantly to predictions of psychological distress, but not to predictions of physical illness, a finding consistent with the work of Beck, Ellis, and others, who have reported significant correlations between holding irrational thoughts and measures of psychological distress, such as depression. Responses to the Cognitive Hardiness subscale showed that cognitive hardiness significantly contributed to predictions of both psychological distress and well-being, but not to physical illness (Nowack, 1990).

Study One used only one subscale of the *SAI*. This subscale, with an internal reliability of .70, measures cognitive styles of coping and contains ten items. Items 1-5 represent a positive cognitive coping style and items 6-10 represent a negative cognitive coping style. The response format is a 5-point Likert scale (never, rarely,

sometimes, often, and always) giving a maximum score of 50 points. Lower scores represent a negative coping style, whereas higher scores represent a positive coping style. Relevant statements were reverse scored. Negative thoughts have been found to contribute significantly to predictions of psychological distress. The Cognitive Coping subscale of the *SAI* appears in Appendix B.

#### *Questionnaire 4: Coping Scale for Adults (CSA)*

The *CSA* (Frydenberg & Lewis, 1997) is a self-report inventory. It was developed over an eight-year period as a self-help instrument, with the intention of measuring an individual's coping strategies in times of stress, in order to assist the development of psychosocial competence and consideration of behavioural change (Frydenberg & Lewis, 1997). In addition, it has been used in research, in clinical practice, career planning, monitoring cognitive behavioural change, and in organizations, as a tool for understanding employees' behaviour, with a view to developing better team work through the use of more productive strategies.

Frydenberg and Lewis (2001) used the *CSA* to examine the coping behaviours of Australian managers versus a non-managerial group. The sample comprised 137 managers within one organization and a group of 236 non-managers. They found that the managers, when compared with the non-managers, used more productive coping strategies (such as working hard and problem solving), and fewer non-productive strategies (such as worry, letting off steam, and wishful thinking), when coping with their general concerns. The *CSA* was also used by Llewellyn, Thompson, Whybrow and McConnell (2003), to measure the coping styles of primary carers of children with disabilities.

This instrument builds on previous collaboration by Frydenberg and Lewis (1993) and their *Adolescent Coping Scale (ACS)*. After experimental usage of the *ACS*

with young adults, Frydenberg and Lewis recognized the need for a coping scale tailored specifically for adult use. Neither instrument is reliant on reading or comprehension skills beyond primary school. Both instruments are recognized as the most comprehensive instruments of their kind (Australian Council of Educational Research, 1997). Moreover, the *CSA* is the first such comprehensive instrument to be developed in the Australian context.

The *CSA* conceptualizes coping in terms of four distinct coping styles, three productive and one non-productive (Frydenberg & Lewis, 1997). The coping styles are (a) dealing with the problem, (b) optimism, (c) sharing, and (d) non-productive coping (Frydenberg & Lewis, 1997).

The coping style “dealing with the problem” is characterized by (a) focusing on solving the problem, (b) physical recreation, (c) humour, (d) working hard, (e) protecting self, and (f) improving relationships. The coping style “optimism” comprises (a) focus on the positive, (b) seeking relaxing diversions, (c) wishful thinking, and (d) spiritual support. The coping style “sharing” focuses on (a) seeking social support, (b) professional help, social action, and (c) not keeping the problem to oneself. The style “non-productive coping” includes (a) worry, (b) wishful thinking, (c) not coping, (d) ignoring the problem, (e) tension reduction, (f) keeping the problem to oneself, and (g) self-blame (Frydenberg & Lewis, 1997).

There are two forms of the instrument, a long form and a short form. The long form contains 73 structured items, which assess 18 conceptual and empirical coping strategies. These are (a) seek social support, (b) focus on solving the problem, (c) work hard, (d) worry, (e) improve relationships, (f) wishful thinking, (g) tension reduction, (h) social action, (i) ignore the problem, (j) self-blame, (k) keep to oneself, (l) seek spiritual support, (m) focus on the positive, (n) seek professional help,

(o) seek relaxing diversions, (p) physical recreation, (q) protect oneself, and (r) humour. The short form comprises 19 items and one open-ended question (Frydenberg & Lewis, 1997). Also there are two versions, one that relates to a specific concern and one that relates to concerns in general. This study used the general form and the short version, for the purpose of brevity and practicality.

Frydenberg and Lewis claim that research demonstrates the short version is a useful indicator of a respondent's performance on the long form, but state that reliability is lower than for the long form (particularly for the scales optimism and sharing). In order to minimize measurement error, the authors recommend that coping style dimensions be assessed using the long form. However, administration of the long form can be impractical, particularly for the purpose of Study One. For the short form, coefficient alpha reliability estimates for the four scales are (a) dealing with the problem (.65), (b) non-productive coping (.73), (c) optimism (.45), and (d) sharing (.42). Whereas for the long form alpha levels range from .70 to .90. However, examination of coping styles in this brief version indicates satisfactory discrimination between the four scales (Frydenberg & Lewis, 1997).

The response format for the instrument is that of a five-point Likert scale where 1 = doesn't apply or don't do it, 2 = used very little, 3 = used sometimes, 4 = used often, and 5 = used a great deal. Scoring of the instrument is straightforward. Responses to the final open-ended question were coded in order to categorize additional coping strategies not covered by the other 19 structured questions. The answer sheet is also a profile chart.

A computer-scoring service for the instrument is unavailable, and hand scoring is cumbersome as well as time consuming. For example, to score and profile this test, it is necessary to manually transfer 148 scores into 19 rows consisting of 3, 4, or 5

numbered items that appear to be randomly distributed. Each row score is then multiplied by 3, 5, or 7 to arrive at an adjusted score.

From six unpublished papers using the *CSA*, Frydenberg and Lewis (2002) concluded that this research supported the construct validity of this scale. They stated that the reliability and validity of the scale are based on its inter-item consistency, its comparison with their *ACS*, and on comparison with other published coping instruments (Folkman & Lazarus, 1988; & Moos, 1993).

The *CSA* was initially normed on 371 Anglo/Australian adults, and later trialled on several thousand (Frydenberg & Lewis, 1997). The norms were established with 856 male and female adults of varying ages and occupational backgrounds. The item reliability was tested and retested ten to fourteen days apart on 25 respondents. Test-retest correlations (Pearson product-moment) were then computed for items. This provided statistically significant correlations, which satisfied the authors (Frydenberg & Lewis, 1997). In this study, the alpha coefficients were relatively high, mostly between 0.70 and 0.93.

Since the standard norms have been established over a wide selection of criteria, Frydenberg and Lewis believe that this demonstrates that the *CSA* is valid for a normal population. Furthermore, The Australian Council for Educational Research (1997) recognized the reliability and validity of the instrument. Similarly, claims made by Frydenberg and Lewis (1997) have been supported by a critical review in the *Mental Measurement Yearbook* (1998). The *CSA*, which is used to discriminate between the use of a productive and non-productive coping style, appears in Appendix B.

### *Procedure*

To gather data for this initial study, a student research team comprising four graduate students (Chalip, Glenn Goold, Klokiw & Russell, 1999) was established. The team developed a survey kit and set up a voicemail at Bond University to receive calls from interested, potential participants. Once data had been collected, each student proceeded with independent research.

The Bond University Research and Ethics Committee approved all research procedures and materials. Permission was obtained from the Australian Council of Educational Research Ltd to reproduce the short form of the *CSA* by Frydenberg and Lewis (1997). In addition, managerial permission was obtained before material advertising the study was placed on notice boards, and surveys distributed to potential participants at retirement villages and community facilities, such as shopping centres and libraries.

To test the appropriateness of material in the survey kit, a pilot study was conducted on 20 retirees who matched inclusion criteria, as because of anonymity, it was not possible to explain any parts in the questions that they might misinterpret. Consideration of feedback resulted in minor adjustments to content that some participants found ambiguous.

Access to potential participants was gained through (a) the local media (such as a radio interview, a press release, and advertisements in newspapers), (b) distribution of flyers, (c) placement of material on notice boards in community facilities, and (d) retirement villages. Presentations explaining the study were given by a member of the team at (a) retirement villages that cater for residents likely to meet study eligibility criteria, (b) seniors' groups, such as Probus, Association for Independent Retirees, University of the Third Age, National Seniors Association, and

Senior Citizens' groups. After presentations, survey kits were distributed to those interested. Other potential participants were invited to call the voicemail to leave their names and telephone numbers or other contact details, to be followed up by a member of the research team. After explaining the purpose of the study, answering questions, and checking eligibility for inclusion, a survey kit was mailed to those wishing to proceed. In the case of residents of retirement villages, anonymously completed surveys were either left in a locked box in the manager's office to be collected by a student research team member, or mailed in a prepaid envelope to the university. Those not residing in retirement villages were required to mail anonymously completed surveys in a pre-paid envelope to the university. Two thousand survey kits were distributed.

Participants completed the self-report surveys at home in their own time, and either mailed them to the university, or placed them in a locked box for later collection. This procedure was chosen over personal interviewing, for purposes of economy of time, ease of data collection, anonymity, and objectivity.

The literature, as previously stated, shows that demographics, other than gender, do not significantly impact depression-happiness levels (Watson, 2000), women are at more risk for depression than males (Anstey & Luszcz, 2002), and there is a strong link between the use of an unproductive coping style and negative outcomes, such as stress and depression. To a lesser degree, there is a link between the use of a productive coping style and positive outcomes, such as happiness (Frydenberg & Lewis, 1997). Therefore Study One sought to determine whether these findings applied to retirees living on the Gold Coast, Queensland.

Study One investigated the influence of demographics, gender, involvement in activities, and the use of coping strategies/styles on depression-happiness.

Depression-happiness was measured by the *Depression Happiness Scale*. In order to give an insight into different aspects of coping, the latter was measured by three instruments: the Cognitive Coping (positive and negative) subscale of the *Stress Assessment Inventory*, and the *Coping Scale for Adults*. The *CSARQ*, which was formulated from strategies suggested for a happy retirement by participants of a study by Sharpley and Yardley (1999), discriminated between the use of proactive and passive coping using cognitive, affective and behavioral components. The *SAI* discriminated between the use of positive and negative cognitions. The *CSA* involved psychosocial aspects of coping, and discriminated between the use of productive and non-productive coping. Statistical procedures using version 15.0 of the Statistical Package for the Social Sciences tested the hypotheses.

## Results

### *Demographic Profile of Participants*

Two thousand surveys were sent to potential participants. Four hundred and ninety surveys were returned, giving a low response rate of 24.5%, perhaps explained by the age group, some of whom may have found the survey too long, or too demanding. However, 120 returned surveys were discarded, either because they did not meet eligibility criteria, or because they were insufficiently complete to be useful.

Therefore, participants who did meet the criteria, and also provided useable data, comprised 370 self-selected volunteers, of which 157 (42.5%) were male and 212 (57.5%) were female. One participant did not record information for gender. Participants were aware they would receive no enticements for participation. Ages for participants ranged from 65 to 85 years ( $M=72.3$  years,  $SD=4.9$  years). Rather than collected as a continuous variable, age was categorized into four groups: 65-69 being the youngest, 70-74 being the younger, 75-79 being the older and 80-85 being the

oldest, so that differences in depression-happiness could be ascertained within these age categories. Participants who had not been in the paid workforce, considered they retired either when their spouses retired, or when their children left home. No males were in this latter category. The number of years since retirement ranged from 1 to 58 years ( $M = 13.09$ ,  $SD = 8.00$ ). Two hundred and seventy eight (75.1%) lived in the community, and 92 (24.9%) lived in retirement villages. Full demographic information appears in Appendix B, figures 1B-15B.

Most participants (a) were happier rather than depressed (93%); (b) were female (57%); (c) were aged 70 to 79 (66%); (d) were born in Australia (65%); (e) had a partner (62%); (f) lived in the community, mostly in their own home (75%); (g) had income from a government pension of some kind (38%); (h) had income before retirement less than \$40,000 (46.6%); (i) had a current income less than \$20,000 (38%); (j) completed primary school as their highest level of education (54%); (k) prior to retirement were in full time paid work (65%); (l) were employed as clerks or tradespersons (39%); (m) retired because of age (55%); (n) perceived their physical health was good to excellent (68%); and (o) perceived their mental health was good to excellent (79%).

#### *Exploratory Analyses of the Main Dependent Variables*

The main dependent measures of depression-happiness (as measured by the *Depression Happiness Scale*) and coping (as measured by the *Coping Scale for Adjustment to Retirement*, the *Stress Assessment Inventory* and the *Coping Scale for Adults*) were inspected for normality and outliers using histograms, box-plots and standardized measures of skew and kurtosis. Given the sample size ( $N = 370$ ), standardized measures for skew and kurtosis, identification of outliers was evaluated, using a cut-off of 3.29 ( $p < .001$ ).

Visual inspection and examination of standardized skew values revealed significant negative skew for the *Depression Happiness Scale* variable. On closer visual inspection it was seen that this skew could be attributed to the fact that most subjects responded very favourably. A reflect and square root transformation was undertaken, which significantly normalized the data. Consequently the transformed *Depression Happiness Scale* score was used in further analysis. None of the three coping instruments scores showed significant skew or kurtosis.

The distribution of the *Coping Scale for Adjustment to Retirement Questionnaire (CSARQ)* scores and the *Coping Scale for Adults (CSA)* scores for the groups revealed several univariate outliers, using a critical value of  $\pm 3.29$ . These data points were examined, but removal of them could not be justified, because they had little impact on the results, and appeared to belong to the population investigated. When these scores were removed, they made no significant change to the results and therefore remained in the analysis. No problematic scores were identified for the *Stress Assessment Inventory (SAI)* or transformed *Depression Happiness Scale (DHS)* scores.

*Descriptive statistics*

Table 1

*Means and Standard Deviations of DHS, CSARQ, SAI and CSA scores for MANOVA.*

Gender	Dependent Variables							
	<u>DHS transformed)</u>		<u>CSARQ</u>		<u>SAI</u>		<u>CSA</u>	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Male	4.13	1.21	99.31	21.74	18.24	3.10	51.37	9.17
Female	4.46	1.19	93.99	21.73	19.20	3.37	54.47	9.32
OVERALL	4.32	1.21	96.24	21.86	18.79	3.29	53.16	9.37

Table 1 shows reflected scores for the *DHS*. Therefore, a higher score on the *DHS* indicates more depression. Females' higher *DHS* mean score indicates they were more depressed than males. In order to investigate whether above differences are statistically significant the following analyses were conducted.

*Main Analyses*

In order to investigate whether the above differences are statistically significant, the following analyses were conducted. Data were analyzed using the Statistical Package for the Social Sciences version 15.0. The main analyses included a series of ANOVAS on the demographic variables (Hypothesis 1), ANOVAS on activities categories (Hypothesis 2), a Multivariate Analysis of Variance (Hypotheses 3-6), and multiple regression and correlation analysis (Hypotheses 7-9).

The ratio of the largest to smallest group was not problematic even though the cell sizes in the main analysis were unequal, (Male  $n = 153$ ; Female  $n = 209$ ). The sample size was sufficiently large to produce adequate power in the analysis (Howell, 2002). Following Cohen's (1988) conventions for Partial Eta Squared, an effect size of .01 was considered small, .06 was considered medium, and .15 was considered large.

To test Hypothesis 1, ANOVAS were conducted using the demographic variables (a) age, (b) ethnicity, (c) education, (d) income, and (e) marital status, as the independent variables, and *Depression Happiness Scale* scores as the dependent variable. All assumptions for the analysis were met. No significant differences for any of the demographic variables were found. Therefore Hypothesis 1 was supported.

To test Hypothesis 2, ANOVAS were conducted using categories and subcategories of activities as the independent variables, and *Depression Happiness Scale* scores as the dependent variable. All assumptions for the analysis were met. No significant differences were found for any of the primary categories: (a) pursuing an interest, (b) working, (c) belonging to an organization, and (d) socializing. Therefore Hypothesis 2 was not supported. However, the subcategory pursuing a physical interest was shown to significantly influence depression-happiness levels,  $F(2,207) = 3.51, p < .05$ .

To test Hypotheses 3 to 6 the data were entered into Multivariate Analysis of Variance (MANOVA) using gender as the independent variable (IV) and *Depression Happiness Scale*, *Coping Scale for Adjustment to Retirement Questionnaire*, *Stress Assessment Inventory* and *Coping Scale for Adults* scores as dependent variables (DV). Inspection of correlations (Table 2) showed that each of the dependent variables was significantly correlated with at least one other variable, therefore

justifying the use of MANOVA techniques. The Means and Standard Deviations were calculated for each of the variables, and are summarized for the gender condition in Table 1.

Investigation of MANOVA assumptions revealed that Homogeneity of Covariance (Box's  $M$ ) was met. There were no multivariate outliers, and assumptions of normality and linearity for the dependent variables were met. Tolerance values ranged from .81 to .97 indicating no problems with multicollinearity. The assumption of Homogeneity of Variance was met (Levene's Test of Equality of Error Variances,  $p > .05$ ).

Table 2

*Bivariate Correlations of DHS, CSARQ, SAI and CSA variables (N = 370).*

Variables	1	2	3	4
1. DHS	-			
2. CSARQ	.238**	-		
3. SAI	.240**	-.062	-	
4. CSA	-.029	-.172**	.409**	-

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

The results revealed a significant multivariate effect for Gender,  $F(4, 357) = 5.87, p < .001, \eta^2 = .062$ . This represented a medium effect (6.2% variance explained).

Univariate comparisons were undertaken using a modified Bonferroni correction to protect against possible inflated Type I error rates ( $p = .04$ ). A significant univariate effect of Gender was found for the *Depression Happiness Scale*,  $F(1, 360) = 6.80, p = .009, \eta^2 = .019$ . Therefore Hypothesis 3 was supported. Females ( $M = 4.46, SD = 0.08$ ) had significantly higher *Depression Happiness Scale*

scores than males ( $M = 4.13$ ,  $SD = 0.10$ ) on the reflected variable, indicating that females were more depressed than males.

A significant univariate effect of Gender was also found for the *Coping Scale for Adjustment to Retirement*,  $F(1, 360) = 5.30$ ,  $p = .022$ ,  $\eta^2 = .015$ . Males ( $M = 99.32$ ,  $SD = 1.78$ ) reported using significantly more pro-active coping strategies than females ( $M = 93.99$ ,  $SD = 1.50$ ). Therefore Hypothesis 4 was supported.

Hypothesis 5 was not supported, with a significant effect of gender on the *Stress Assessment Inventory*,  $F(1, 360) = 7.75$ ,  $p = .006$ ,  $\eta^2 = .021$  in the opposite direction to the hypothesis. Males ( $M = 18.24$ ,  $SD = 0.26$ ) had significantly lower SAI scores than females ( $M = 19.20$ ,  $SD = 0.23$ ), indicating that males used fewer positive cognitive coping strategies than females.

A significant univariate effect of Gender was found for the *Coping Scale for Adults*,  $F(1, 360) = 9.88$ ,  $p = .002$ ,  $\eta^2 = .027$ . Males ( $M = 51.37$ ,  $SD = 0.75$ ) had significantly lower CSA scores than females ( $M = 54.47$ ,  $SD = 0.64$ ). Hypothesis 6 was not supported as the results indicated that, contrary to the prediction, males used a significantly less productive style of coping than females. Although differences between males and females were found on all variables, it should be noted that the magnitude of the effect was relatively small, with gender differences only explaining between 1.5% and 2.7% of the variance in the dependent variables.

To test Hypotheses 7 to 9, standard multiple regression analysis was used to evaluate linear associations between happiness, as measured by the dependent variable *Depression Happiness Scale*, and the independent variables of coping, as measured by the *Coping Scale for Adjustment to Retirement Questionnaire*, the *Stress Assessment Inventory* and the *Coping Scale for Adults*.

Assumption of normality, linearity, homoscedasticity and independence of observations were met. Three highly influential scores were identified by Cook's distances, and two scores were identified as both leverage points and multivariate outliers (Mahalanobis distance). When these scores were removed and the analysis re-run they were found to significantly impact on the analysis, and these scores were subsequently removed. No problems with multicollinearity were found. It should be noted that the *Depression Happiness Scale* variable was reflected and square rooted prior to analysis, so high scores represent lower levels of happiness.

The regression analysis revealed that the three coping variables significantly predicted *Depression Happiness Scale* scores,  $F(3,360) = 22.14$ ;  $p < .001$ . Combined the independent variables accounted for 15.6% (95% confidence intervals range from 8.8% to 22.4 %) of the variance in *DHS* scores.

Standardized, unstandardized coefficients with the standard errors and confidence intervals of the unstandardized coefficients are shown in Table 3. Both the *Coping Scale for Adjustment to Retirement* and the *Stress Assessment Inventory* made a significant independent contribution to *Depression Happiness Scale*, providing support for Hypotheses 7 and 8. Participants reporting more pro-active and more positive coping strategies, also reported being significantly happier. Inspection of semi-partial correlations showed that the *Stress Assessment Inventory* made a slightly larger contribution ( $sr^2 = 8.5\%$ ) to happiness than the *Coping Scale for Adjustment to Retirement Questionnaire* ( $sr^2 = 6.6\%$ ). The *Coping Scale for Adults* also predicted significant unique variance in happiness, although it was in the opposite direction to that hypothesized. While significant the association between the *Coping Scale for Adults* and the *Depression Happiness Scale* was substantially weaker than

the *Coping Scale for Adjustment to Retirement Questionnaire* and *Stress Assessment Inventory* variables ( $sr^2 = 1.8\%$ ).

Table 3

*Unstandardized and Standardized Coefficients, Standard Errors and Confidence Intervals of the Unstandardized coefficients scores.*

	Unstandardized		95% Confidence Intervals for B		Standardized
	B	Std. Error	Lower bound	Upper bound	Beta ( $\beta$ )
<i>CSARQ</i>	-.014	.003	-.019	-.009	-.261**
<i>SAI</i>	-.117	.019	-.155	-.079	-.318**
<i>CSA</i>	.020	.007	.006	.034	.150**

\*\*  $p < .01$

Due to the significant gender differences on the coping and happiness variables, an additional exploratory analysis was undertaken by running separate correlations and regressions for males and females.

The coping variables significantly predicted depression-happiness levels for both males,  $F(3,150) = 5.73; p = .001$  and females,  $F(3,205) = 16.95; p < .001$ .

However, the variables were substantially better predictors for females ( $R^2=19.9\%$ ) compared to males ( $R^2=10.3\%$ ). Table 4 shows that the correlations between

*Depression Happiness Scale*, the *Coping Scale for Adjustment to Retirement*

*Questionnaire* and the *Stress Assessment Inventory* coping variables were stronger for females than males.

Table 4

Bivariate Correlations of DHS, CSARQ, SAI and CSA variables for males (n = 153) and females (n = 208).

Variables	1	2	3	4
Gender	Male/Female	Male/Female	Male/Female	
1. <i>DHS</i> -				
2. <i>CSARQ</i>	-.231**/ -.272**	-		
3. <i>SAI</i>	-.190**/ -.298**	-.056 / -.071	-	
4. <i>CSA</i>	.058 / .057	-.233**/ -.139*	.388**/ .389**	-

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

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

## Discussion

Results from Study One provided a snapshot of depression-happiness levels of retirees living on the Gold Coast Queensland, and how these retirees coped when confronted with stress. It was found that neither demographics, nor involvement in activities influenced depression-happiness levels. Demographics included (a) age, (b) ethnicity, (c) marital status, (d) income, and (e) education. However, both gender and the use of coping strategies/styles did influence depression-happiness levels. Happy retirees behaved differently than less happy retirees, in that they used more constructive coping strategies.

Specifically, Hypothesis 1, that the demographics (a) age, (b) ethnicity, (c) marital status, (d) income, and (e) education will not significantly influence depression-happiness levels, was supported. This means that these demographics were not predictors of depression-happiness levels.

Demographics were investigated to ascertain if Gold Coast retirees were different. In addition, this demographic information is important in that it provides a background for the sample population. These results generally concur with the literature for a wealthy Western country like Australia (Layard, 2005). Overall, studies have shown that demographic variables are relatively weak predictors of happiness (Watson, 2000). Previous research has found that demographic factors tend to distinguish only between people who are moderately happy and those who are very happy (Diener & Diener, 1996).

The low rate of depression (7%) for this sample is reflected in the statistics of the *Australian National Mental Health Survey* that also reports a low level of depression for the elderly (Australian Bureau of Statistics, 1997). The demographic profile of participants for Study One is representative of the profile of older persons residing in Gold Coast City (GGCC, 1999).

Hypothesis 2, that involvement in activities will significantly influence depression-happiness levels, was not supported. This finding does not concur with the literature, which claims involvement in activities is a buffer against stress and depression, for example the coping styles/strategies research of Sharpley and Yardley (1999); as well as Frydenberg and Lewis (1997). Similarly, Seligman (2002) asserts that happy people participate in activities. However, it was found that pursuing a physical interest significantly influenced depression-happiness levels. This finding is strongly supported by the research literature, which abounds in evidence that exercise is an insulator against depression. For example, research by Brown, Mishra, Lee and Bauman (2000), as well as Lee and Russell (2003) demonstrated the protective benefits of physical activity in improving and maintaining mental health.

Hypothesis 3, that females will be significantly more depressed than males, as measured by the *Depression Happiness Scale*, was supported. Although the Sharpley and Yardley (1999) study found no gender difference, a gender difference is generally supported by the literature. For example, Rey (2002) claimed that depression is common, and that one in every four women, and one in every eight men will experience an episode of clinical depression in their lifetime. Depression is at times part of human experience, and can become clinical depression, when these feelings are intense, persistent, and interfere with everyday functioning. In the current study female gender, as a risk factor for depression, was consistent with earlier research (Anstey & Luszcz, 2002; & Australian Psychological Society, 2000).

Nolen-Hoeksema's (1995) theory of women's increased vulnerability to depression is that women focus on negative emotions and worry, whereas men use the more productive strategy of distracting themselves from negative emotions, through watching or participating in sport. Males are less likely than females to admit to psychological distress, but feel free to express anger. Women receive more social permission to express fear and depression.

Hypothesis 4, that males will use significantly more pro-active coping strategies than females, as measured by the *Coping Scale for Adjustment to Retirement*, was supported, indicating that males used a more cognitive-behavioural approach than females. The *CSARQ* was developed by the research team (Chalip, Klokiw, Glenn Goold, & Russell), to test the recommendations offered by retirees in the Sharpley and Yardley (1999) study.

Hypothesis 5, that males will use significantly more positive cognitive coping strategies than females, as measured by the cognitive coping subscale of the *Stress*

*Assessment Inventory*, was not supported. Females used more positive cognitions than males.

Hypothesis 6, that males will use a significantly more productive style of coping than females, as measured by the *Coping Scale for Adults*, was not supported. This study found that males overall used less of the psychosocial style of coping than females.

Thus, it was found that all four measurement instruments showed an effect in gender difference. However, this effect was relatively small and not always in the direction hypothesized.

The literature supports a strong link between unproductive coping styles and negative outcomes, and a link for productive coping styles and positive outcomes, although not as strong as for unproductive coping styles (Frydenberg & Lewis, 1997). The latter link is inconsistent with the results of Hypotheses 5 and 6, where females although more depressed, used more positive thinking and a more productive psychosocial style than males. However, the link is consistent with the support of Hypothesis 4, which found that females used fewer pro-active strategies than males.

Hypothesis 7, that retirees who use more pro-active coping strategies, as measured by the *Coping Scale for Adjustment to Retirement Questionnaire*, will be significantly happier, as measured by the *Depression Happiness Scale*, was supported. This indicates that happy retirees used more cognitive, affective and behavioural strategies than the less happy retirees. The efficacy of the cognitive-behavioural approach has been well researched and supported in the literature (National Association of Cognitive Behavioural Therapy, 2005).

Hypothesis 8, that retirees who use more positive cognitive coping, as measured by the cognitive coping subscale of the *Stress Assessment Inventory*, will be

happier, as measured by the *Depression Happiness Scale* was supported. Of the three coping instruments, the *Stress Assessment Inventory* was the strongest predictor of depression-happiness.

Hypothesis 9, that retirees who use a more productive style of coping, as measured by the *Coping Scale for Adults*, will be significantly happier, was supported. However, of the three coping instruments, the *CSA* was the weakest predictor of depression-happiness. The finding for Hypothesis 9, concerning the link between the use of productive coping strategies and happiness is consistent with the research of Frydenberg and Lewis (1997, 2002). Johnston (2003) also found that the use of productive coping strategies can steer one towards a healthy adjustment to retirement, and alternatively the use of unproductive coping strategies can hinder adjustment and in some cases lead to depression.

#### *Overview*

Findings from Study One showed that demographics, other than gender, do not differ from expectations described in the literature, in that they did not influence depression-happiness levels. From the beginning of the study males and females performed differently. Gender differences were found for depression-happiness levels and the use of coping strategies/styles. Males were happier, and used more pro-active strategies (cognitive-behavioural approach) than females. Females used more positive thinking and a more productive psychosocial coping style than males. The psychosocial coping style did not significantly predict depression-happiness levels for males. For females all three coping instruments predicted depression-happiness levels. Across all participants, greater happiness was associated with the use of more proactive strategies, as measured by the *Coping Scale for Adjustment to Retirement*, and more positive cognitions, as measured by the *Stress Assessment Inventory*. The

*Coping Scale for Adults* was the weakest predictor of happiness. The *Coping Scale for Adjustment to Retirement Questionnaire* compared well with the published instruments in predicting depression-happiness levels. In addition, the use of three different coping instruments permitted a check on the reliability of measurement.

#### *Limitations*

Non-significant results may mean that effects were actually not present in the population, or that the study did not find effects that were there. Furthermore, since the results for Study One relied on self-report by the respondents, they can be only as accurate as respondents were aware and honest.

These results are relevant to Gold Coast retirees only, and probably cannot be generalized to the whole population of retirees. Participants were volunteers and they are different than non-volunteers, in that they are more motivated and active, and as a consequence, they are more than likely happier than non-volunteers, who may be depressed. This bias is insurmountable, as it is required that research participants take part voluntarily, and are free to cease participation at any time.

Since there was a low response rate and since 120 returned surveys were unusable, many because they were incomplete, it would appear that the survey may have been too long and demanding for this age group. Nevertheless, the sample size of 370 was adequate to obtain sufficient statistical power. That more respondents were female (57.5%) reflects the different life expectancy in the elderly age group.

#### *Conclusion*

Implications from Study One are, that as significant differences were found, these results demonstrated an effect that justified action. The literature supports the efficacy of the cognitive-behavioural approach for stress and depression management, and the use of effective cognitive and behavioural coping strategies, based on a

healthy and balanced lifestyle. Therefore, it was appropriate to pursue further investigation through an intervention study that taught effective coping strategies, using the cognitive-behavioural approach.

## CHAPTER THREE

### Study Two: Literature Review

Two studies were undertaken to further investigate the link between the use of effective coping strategies/styles and mental-emotional health, as measured by the *Depression Happiness Scale*. The findings from Study One, which took a snapshot of the mental-emotional health of 370 retirees living on the Gold Coast in Queensland, found that happy retirees behaved differently than less happy retirees, in that they used more effective coping strategies/styles. Happiness can be interpreted as the outcome of productive behaviours, such as using better coping strategies/styles. Study Two investigated whether these behaviours could be learned. Thus, Study Two investigated whether productive coping strategies/styles could be learned and practised, and if these new behaviours could enhance happiness levels.

The rationale for Study Two was that while there is a proliferation of information and seminars for retirees on financial management, accommodation options, and physical health, there is a dearth of information, seminars and workshops for retirees on psychological well-being, with a view to optimizing happiness in the third life stage.

Research has demonstrated that money is happiness neutral (Seligman, 2002). Money can help, but it can also hinder. It seems that in general people earning the most, adapt to that level and then need even more to be temporarily happy. Pursuing happiness through money may come at a high cost to relationships and health (Layard, 2005). Chopra (2006) claimed that pursuing happiness for a reason, such as reaching material goals, is a form of misery, because the reason can be taken away at any time. Thus, the goal one needs to pursue is happiness per se, for no specific reason. Chopra perceived that happiness is the goal of all goals, and it is a state of

consciousness that already exists within a person, rather than originating from external circumstances. Therefore, it is a goal that an individual can pursue.

Traditional approaches in psychology have adopted an illness model by concentrating on deficits rather than strengths, whereas newer approaches, such as Positive Psychology, focus on strengths, rather than deficits. The use of productive coping strategies/styles, which emerged from cognitive behavioural theory, can be seen as strengths. Skill building of strengths can be incorporated into a psychoeducational group program.

#### *Efficacy of cognitive behavioural therapy (CBT)*

CBT has for many years held supremacy over other psychological therapies for the treatment of mental disorders such as depression, and enjoys widespread use among health professionals. It is the treatment recommended by health fund insurers, and it is the preferred approach by universities in training future practitioners. Furthermore, a strong evidence base supports the therapy's claim for specific efficacy with depression, and the theory is most suitable for research, since it is standardized and manualized.

The National Association of Cognitive Behavioural Therapists (NACBT, 2005) asserted that cognitive behavioural therapy is the leader in evidence-based psychotherapy. There is increasing evidence from many empirical studies demonstrating the efficacy of CBT for children, adolescents, and adults, both in individual and group settings (White & Freeman, 2000). To a much lesser extent it has been applied to the elderly, and mainly in an individual setting for later life depression (Thompson, Coon, Gallagher-Thompson, Sommer, & Koin, 2001); generalized anxiety disorder (Wetherell, Gatz, & Craske, 2003); and sleep problems (McCurry, Logsdon, Vitiello, & Teri (1998).

Despite its credibility, CBT has its detractors, and some research has questioned its primacy. Lee (1998) proposed that under increased scrutiny, scientific paradigms have become vulnerable. Lee, whose empirical work was based on the cognitive approach, posited that the cognitive approach has completed its run; because it has been shown that cognition rarely plays a causal role in behaviour. She provided empirical findings that show cognitive factors as unnecessary and insufficient for explanations of behavioural events. Lee (1987, 1993) concluded that the construct of self-efficacy did not possess the explanatory power with which the cognitive approach has been credited. Later Lee (1998) drew attention to Bruner (1992), as well as Sheffrin and Schneider (1977), who claimed that behaviour can happen in the apparent absence of cognition or awareness. For example, automatic behaviours such as driving a car require minimal attention after mastery of skills. Similarly, Lee (1998) agreed with Fisher and Gochros (1975) who argued that cognitive and affective awareness are not essential for overt behavioural change. Those who feel depressed, or engage in such behaviours as smoking or excessive eating, often find that knowledge of why these behaviours occur is insufficient, because insight is not enough to effect change. Change involves the use of skills to “act” in order to solve problems. In addition, awareness and attitude change may follow, rather than precede, new behaviour.

King (2002) reviewed studies from the last decade, which dealt with interventions for depression (for example, Blatt & Zuroff, 2000; Castonguay, 1996; Elkin, 1989; Scott and Freeman, 1990). These studies included the use of medication and such psychological interventions as CBT, Counselling/Problem Solving focused treatment, Interpersonal Therapy and Psychodynamic approaches. King concluded that symptom remission occurs with all approaches, even from the placebo effect. King claimed that not only does the cognitive approach not deserve the high esteem

that it has commanded, but also that there is little evidence for its theoretical base. Furthermore, King established that when the use of cognitive strategies was increased outcomes worsened, because CBT lacks effective strategies for managing alliance problems. The therapeutic alliance was found to be of paramount importance. An extroverted, active and warm therapist was more likely to achieve therapeutic alliance.

Despite these criticisms the cognitive behavioural approach has a long established successful application in effecting behavioural change (Spiegler & Guevremont, 1998).

### *Cognitive-behavioural theory*

Cognitive-behavioural theory is based on the idea that thinking plays a significant role in how we feel and act. Therefore, when we experience unwanted feelings and behaviours, we can learn to react in more desirable ways, by identifying the thinking that precedes the behaviour, and replacing this thinking with more rational and realistic thinking. It is not external events, situations and other people that cause our feelings and behaviours, but the way we interpret these (Rehm, 1990). If the situation cannot be changed, we can change our thoughts in order to feel and act better. We can change negative thoughts leading to negative feelings such as sadness or depression to positive thoughts, which can lift our mood and consequently allow us to act more constructively.

The behavioural perspective of CBT rests on various techniques, such as (a) reinforcement, (b) modelling, (c) shaping, (d) coaching, (e) behavioural rehearsal, (f) stimulus control, and (g) discrimination training. Behaviour is observed before, during, and after the intervention. This recording of data provides continuous feedback, which in itself can serve as a motivator for behavioural change in the desired direction (Corey, 1996).

Cognitive behavioural theory is based on an educational model, which is structured, and directive in the sense that clients learn “how” to unlearn unwanted reactions and learn new and better ways, thus producing better long-term results. It makes use of homework assignments, which reinforce new learning. The approach is scientific, brief and therefore economical, time limited, active, present focused and goal oriented (NACBT, 2005).

#### *Application of CBT to the elderly*

The successful outcomes of CBT with individuals have led to some interest in applying CBT in group settings for the elderly (DeVries & Coon, 2002). Steuer (1984) showed that this approach was effective in reducing levels of stress and depression in the elderly.

In regards to suitability for older persons, Pachana (2005) concluded that cognitive behavioural interventions can empower older adults through education about their automatic thoughts, and move the emphasis from limitations and loss, to strengths they still possess. Older person’s automatic thoughts may have been internalized through ageism, where weaknesses and other symptoms like depression are attributed to age, rather than investigated further (Pachana, 2005). Depression may be a first symptom of a number of treatable disorders. If this is explained away as aging, then early detection and treatment can be missed. Loss can include the death of a spouse, and Pachana claimed that the best support is to teach the surviving person a task that the spouse used to do. This reduces the loss of an area of support, as well as increases the older person’s coping skills repertoire (Pachana, 2005).

#### *Application of CBT in group settings*

Group CBT interventions have focused on 2 types of group approaches: traditional and psychoeducational groups (DeVries & Coon, 2002; Teri & McCurry, 2000; Thompson, Powers, Coon, Takagi, McKibbin, & Gallagher-Thompson, 2000).

Both types of groups are similar, in that they focus on the acquisition of cognitive and behavioural skills for the management of negative emotions, such as stress and depression. They differ in that traditional groups are more flexible in structure, and place more emphasis on dealing with each client's individual problems; whereas psychoeducational groups are highly structured, while placing emphasis on education, the development and practice of new productive coping skills and completing homework assignments to reinforce these skills (DeVries & Coon, 2000). Also they place emphasis on dealing with specific topics each meeting, rather than dealing with each client's individual problems, which are addressed only to the extent that they are relative to the specific topic presented at that meeting (Thompson et al., 2000).

#### *CBT psychoeducational groups*

Psychoeducational groups are economical, time effective, and usually run for a fixed period of time, such as 6-12 weekly sessions of about 90-120 minutes duration, and are usually closed. Specific methods and strategies are incorporated, such as problem solving and relaxation strategies, including meditation, imagery, progressive muscle relaxation, and breathing exercises (Thompson et al., 2000). Participants set behavioural goals, monitor their moods, as well as keep records, which include the frequency and other relevant details of their behaviours, so that these can be challenged and replaced with more helpful and functional behaviours; they also note the antecedents and consequences of their behaviours. This monitoring serves to identify behaviours, and to reinforce desirable behavioural change (White & Freeman, 2000). In this way participants feel empowered and in control of their thoughts, feelings, and actions (Coon, Shurgot, Gillispie, Cardenas, & Gallagher-Thompson, 2005).

Structured on a central theme, the group purpose can include receiving information, sharing relevant experiences, learning how to solve problems,

developing specific coping skills, and receiving and giving support through life transitions, such as adjustment to retirement. Members may complete a questionnaire before the group begins. This provides a baseline measure of how well participants are coping with the relevant issue. Pre and post assessment is often used in order to measure the shift in expected skills (Corey, 2000).

Emphasis is on group cohesion, and group members are expected to support each other, while they practise new behaviours, and move towards a desirable outcome. Reinforcement occurs through praise, approval and greater inclusion in the group. A form of therapeutic alliance between members can be created through a buddy system, which entails the pairing of members (Rose, 1989). Each individual plays a supportive role for the buddy, by reminding the other between meetings to maintain his or her commitments, practise new behaviours and complete homework assignments. In this way, participants are helped to transfer learning from group sessions to everyday life. Spiegler and Guevremont (1998) cited the strengths of this approach as its effectiveness, and the breadth and complexity of its applications.

A CBT based psychoeducational program for stress and depression management can also be associated with a biopsychosocial model. The latter refers to a healthy body, healthy thoughts and feelings, constructive actions, and connection with others, which are all necessary requisites for a balanced lifestyle. Strength-building strategies have been found to have a large buffering effect against stress and depression (Seligman, 2002).

#### *Stress/depression management*

A review of the literature on depression reveals that stress can be a most significant mediating factor contributing to depression, especially when the stress is a result of failed interpersonal relationships (Bellack & Herson, 1998; Hammen, Ellicott & Gitlin, 1992). Many theories identify skills deficits as powerful contributors to

stress and consequent depression (Gotlib & Robinson, 1982; Lewinsohn, Sullivan & Grossup, 1980).

Therefore, it would appear that a depression management program needs to address stress management. From a behavioural perspective, a review of the literature reveals considerable overlap in the management of both depression and stress. However, depression management emphasizes the planning of one's day, so that pleasure and mastery are maximized through involvement in activities (Spiegler & Guevremont, 1998). Activities need to be monitored, and tasks broken down into manageable steps. Reinforcement, such as praise and encouragement, provided both by the self and supportive others, is important (Young, Weinberger, & Beck, 2001).

In his study on retirement, Longhurst (2000) also found that those who engaged in purposeful activities of more than five hours a week, which resulted in the production of something, or which provided a service to others, were significantly less depressed and less stressed in retirement than those who were inactive. Also of significance, Longhurst's study found it was important to have accessibility to emotional support by promoting social networks, to be proactive in maintaining health, and to be aware of lifestyle issues.

Michelbaum (1985) regards stress as a normal occurrence in daily life, and believes one can learn coping strategies that help to deal with stressful events. Stress management training aims to give participants intrapersonal and interpersonal skills to deal with stress constructively. Michelbaum's Stress Inoculation Training (1986) includes (a) information giving, (b) discussion, (c) problem solving, (d) progressive relaxation training, (e) behavioural and imaginal rehearsals, (f) self-monitoring, (g) self-instruction, (h) self-reinforcement, and (i) modifying environmental situations. His program also addresses setting priorities, establishing support systems, and engaging in activities, such as meditation and physical activities.

Schaffer (2000) presented a very similar approach for stress management. He identified the strategies of those who manage their stress as (a) anticipating, monitoring and regulating stressors, (b) practising relaxation, (c) using physical on-the-spot tension reducers when necessary, (d) maintaining positive health buffers, and (e) being involved in the well-being of others. Schaffer's stress management methods include (a) monitoring early warning signs of distress; (b) practising constructive coping responses; (c) maintaining good health buffers such as exercise, nutrition, sleep and healthy pleasures; (d) using effective relaxation methods, including on-the-spot tension reducers and deep relaxation methods; (e) applying effective steps for pacing and balancing time for making transitions and for dealing with change; (f) using effective communication skills to relate with others; (g) participating in caring networks of social support; and (h) properly balancing self-care with social commitment, in order to help modify the social context of personal stress, and contribute to the well-being of others.

#### *Happiness interventions*

Interventions to increase happiness may be extremely beneficial at an individual level, and in turn at a national and international level. Seligman (2005) focusing on psychological interventions, concluded that positive interventions could supplement traditional interventions which relieve suffering. Happy people tend to volunteer more, are more productive and exhibit characteristics desirable for the individual and common good.

Fordyce's (1977) six-week program to enhance happiness was based on the assumption that happiness can be learned. Studies have shown its success. For example, out of 338 non-patient community college students, 69 % increased their happiness levels. A further program with 226 adults produced an 81 % increase in

happiness (Fordyce, 1983). The program comprised cognitive, behavioural and social skills components. The cognitive components of Fordyce's program included:

(a) working on a healthy, outgoing, social personality, (b) lowering expectations and aspirations, (c) thinking positively and optimistically, (d) valuing happiness, (e) being organized and planning ahead, (f) adopting a focus of living in the present, and (g) avoiding worry. Behavioural components included becoming more active and involved, particularly with meaningful work. Social skills components included increased time socializing, being a better friend, and strengthening close relationships.

Seligman (2005) focused on psychological interventions that increase individual happiness, and tested five happiness interventions. He found that three of these interventions lastingly increased happiness and decreased depressive symptoms. He concluded that positive interventions could supplement traditional interventions that relieve suffering. Seligman and Diener (2002) in a study with university students found that the most salient characteristics shared by 10% of the happiest students were stories that have resulted in the production of positive moods. However, exposure needs to be regularly repeated as the mood is temporary (Argyle, 2001). Both normal and depressed participants undergoing cognitive therapy, which teaches people how to see things more rationally and accurately, as well as increasing the number of positive events in their lives, enhanced their happiness levels (Argyle, 2001).

The research of positive psychologists (Argyle, 2001; Buss, 2000; Diener, Suh, Lucas & Smith, 1999; Lykken, 1999; Myers, 1992; Seligman, 2002) has shown that learning to model the behaviour of happy people can enhance happiness. The key objective of positive psychology is to comprehend and facilitate happiness.

#### *Behaviour of happy people*

The contributions of positive psychologists show that happy people are more likely to possess effective communication skills that enable them to have good quality

relationships. They are more likely to have a sense of purpose in life and engage in satisfying work, either paid or voluntary, and can become completely absorbed in activities such as reading, gardening, playing chess, and so on. They avoid negative events, and have the coping strategies and resilience to constructively manage or prevent their negative emotions, such as anger, stress, anxiety and depression. They are willing to obtain support from trusted others, and seek professional help if necessary. Happy people create for themselves an environment that brings beauty and fun into their lives, and one that is conducive to creating (a) good moods, (b) comfort, (c) safety, and (d) sensory pleasures. The latter include (a) picturesque scenery, (b) music, (c) massage, (d) scent from flowers, and (e) pleasant tasting food. A healthy lifestyle includes (a) exercising, (b) eating nutritiously and moderately, (c) being a non-smoker, and (d) minimizing intake of alcohol.

Obstacles to happiness (Carr, 2004) include: (a) habituation to pleasurable situations, (b) making upward social comparisons with those better off, (c) experiencing depression, anxiety and anger, (d) excessive striving for material gain in order to increase happiness, and (e) having inequitable reactions to equal losses and gains, as large gains and successes give small increases in happiness, and small losses and failures result in large decreases in happiness.

In summary, happy people remain productively active, physically, mentally, and socially. They have a sense of purpose and are in control of their lives.

#### *Rationale and Hypotheses for Study Two*

The participants for Study Two were from the normal population seeking education, rather than from a clinical population seeking therapy. Therefore the most suitable type of group for this purpose was the psychoeducational group based on cognitive-behavioural theory.

The aim of Study Two was to investigate whether retirees could learn skills and coping strategies that help to insulate them against depression, develop a resilient mindset to cope with adversity, as well as meet challenges that present themselves, and enhance their happiness. Study Two also aimed to add to the research base, as few similar studies specifically with retirees, have been reported in the literature. Study Two emerged from the significant findings of Study One. A review of the literature revealed that the common strategy leading to physical and mental-emotional well-being, which could be interpreted as happiness, is a balanced lifestyle as well as stress and depression management (Longhurst, 2000; Michelbaum, 1985; & Schaffer, 2000). Retirement imposes a drastic change in an older person's life. This involves a new environment, which requires an entirely new repertoire of coping skills for its reinforcement.

Specifically, Study Two investigated whether there would be a gender difference in depression-happiness levels, and whether happiness levels could be enhanced through participation in a CBT based psychoeducational program, that focused on learning, practising, and developing coping strategies that insulate against stress and depression. To address these questions in line with previous research and findings, the hypotheses for Study Two were evolved.

Homogeneity between the control group and the treatment group was essential if results from the intervention were to be valid. The design of the intervention ensured the two groups were equal, in that participants were matched according to their *Depression Happiness Scale* scores. They were then randomly assigned to a treatment group or to a control group, while also ensuring that each group contained equal numbers of males and females. Thus it was hypothesized:

Hypothesis 1: At pre-test, there will be no significant difference in *Depression*

*Happiness Scale* scores, between the control group and the treatment group, indicating homogeneity between the two groups.

It was expected that the intervention, based on significant research findings, would be successful, and thus those receiving the treatment would increase their happiness levels as the program progressed, and also would be happier than those who did not receive the treatment. The program comprised modelling the behaviour of happy people, and managing stress and depression through the learning of effective coping strategies through a cognitive-behavioural approach.

The research of positive psychologists (Argyle, 2001; Buss, 2000; Diener, Suh, Lucas & Smith, 1999; Lykken, 1999; Myers, 1992; & Seligman, 2002) has shown that learning to model the behaviour of happy people can enhance happiness. Fordyce's (1977, 1983) programs comprising cognitive, behavioural and social skills components showed that happiness can be learned. Seligman (2005) tested five happiness interventions and found that three of these interventions lastingly increased happiness and decreased depressive symptoms. It has been shown that happy people use more effective coping strategies than depressed people (Sharpley & Yardley, 1999; & Frydenberg & Lewis, 2004). Thus it was hypothesized:

Hypothesis 2: At post-test and at six-week follow-up, *Depression Happiness Scale* scores for the treatment group will be significantly higher than *DHS* scores for the control group, indicating that participants in the treatment group are happier than participants in the control group.

Hypothesis 3: At post-test and at six-week follow-up, *Depression Happiness Scale* scores for the treatment group will be significantly higher than at pre-test, indicating that participants in the treatment group are happier after treatment, and that this gain is maintained at six-week follow-up.

Many studies have investigated gender differences in depression, and have found that females are at greater risk for depression than males (Anstey & Luszcz, 2002; Australian Psychological Society, 2000; Kornstein, 2003; Nolen-Hoeksema, 1995; & Ruble, 1993). Thus it was hypothesized:

Hypothesis 4: At pre-test, at post-test, and at six-week follow-up, *Depression Happiness Scale* scores for females will be significantly lower than *DHS* scores for males, indicating that females are more depressed, and males are happier.

The daily strategies, used as a teaching tool to monitor progress, were based on significant research findings, that found that the use of effective coping strategies, following a balanced healthy lifestyle, stress/depression management, and modelling the behaviour of happy people would enhance happiness levels (Layard, 2005; Longhurst, 2000; & Schaffer, 2000). Participants were encouraged to use the daily strategies, and it was expected that as the program progressed, participants would be able to incorporate more strategies into their behaviour, as they learned to internalise the philosophy of doing so. Thus it was hypothesized that:

Hypothesis 5: For the treatment group, participants classified as the happy group (that is, those whose *Depression Happiness Scale* scores fell above the *DHS* mean) are more likely to report more use of the daily strategies at post-test, and at six-week follow-up, than participants classified as the less happy group (that is, those whose *DHS* scores fell below the *DHS* mean).

Hypothesis 6: For the treatment group, reported use of the number of daily strategies will increase significantly from pre-test to post-test, from pre-test to six-week follow-up, and from post-test to six-week follow-up.

It was expected that as the program progressed, participants would become more aware of their feelings, and thus increase the likelihood that their direct, subjective rating would be similar to the more indirect rating on the published

*Depression Happiness Scale*. Asking participants to rate their happiness levels on a daily basis was intended to increase participants' awareness of their behaviour, with a view to making changes as indicated. Also by recording happiness self-ratings on a daily basis, it was intended to encourage participants to focus on, and thus create a positive, healthy mindset that would lead to happiness. Thus it was hypothesized:

Hypothesis 7: For the treatment group, there will be a positive correlation between the *Depression Happiness Scale* scores and the *Happiness Self Rating* scores, at post-test and at six-week follow-up.

## Method

### *Participants*

Volunteer participants were sought through advertisements in local newspapers, through the distribution of flyers, and through presentations during visits to retirement village communities and groups for seniors, such as the Association of Independent Retirees, the National Seniors' Association and Probus. Eligibility for inclusion in this study meant that potential participants had ceased full-time paid work, were aged 60 to 85 years, and were Gold Coast, Queensland residents, who were living independently i.e. that is, not needing help with normal daily living such as feeding, bathing and simple chores. No ceiling was placed on the number of participants accepted. People interested in participating contacted Bond University and left their contact details. From these contacts, 119 people agreed to be mailed more information concerning the study, a one-page questionnaire to complete, and a confidentiality agreement to sign and return to the University. Ninety six people returned completed questionnaires and agreements. Of this number 84 completed the study. The sample containing 40.5% males and 59.5% females was representative of the different life expectancies of males and females for this age group.

### *Design*

A between-subjects design (Elmes, Kantowitz, & Roediger III, 2006) was chosen for Study Two. Participants were matched according to their *Depression Happiness Scale* scores. Then they were randomly assigned to a treatment group or to a control group, while also ensuring that each group contained equal numbers of males and females.

### *Measurement*

The *Depression Happiness Scale* (McGreal and Joseph, 1993) was used to measure depression-happiness levels at pretest, post-test, and at six-week follow-up. This instrument was described in detail in Study One.

The *DHS* is intended for the general population, and was therefore suitable for use in this intervention, whose participants came from the general population. It is a self-report Likert style inventory, where participants rate on a 4-point scale the frequency in the previous seven days that they experienced each of the 25 items (0 = never, 1 = rarely, 2 = sometimes and 3 = often). It measures depression-happiness levels on a bipolar continuous scale. The authors report that all 25 items load onto a single factor at 0.5 or higher, indicating high internal consistency. Also McGreal and Joseph report correlation of  $-.73$  for their *DHS* with the *BDI*, indicating convergent validity, which means that a high correlation between the instruments that measure the same construct was found.

Of the 25 items comprising the *DHS*, 12 are concerned with positive thoughts and feelings, indicating happiness. Thirteen items are concerned with negative thoughts and feelings, indicating depression. Scoring ranges from 25 to 100, with lower scores indicating greater depression, and higher scores indicating greater happiness.

The value of the pre-test scores was to provide a measure for selection to either the treatment group or the control group, and also as an indicator of gains or decreases in scores for individuals in the treatment group, when compared with post treatment scores.

A Daily Coping Strategies Sheet (*DS*), developed by the researcher as a teaching tool, was used by the participants for self-rating of behaviour. The coping strategies were based on cognitive behavioural theory, with a focus on positive feelings, rational and realistic thoughts, and constructive actions. Significance was given to leading a balanced, healthy lifestyle, remaining socially connected, and being physically and mentally active, with a view to managing stress and depression. The *DS* Sheet was intended to provide the participants with a monitor of their daily behaviour, that would encourage them to increase their use of these strategies. Validity and reliability have not been investigated. However the instrument appears to have face validity. Self reported behaviours were precisely defined, for example, “I set a specific goal and achieved it.” The strategies include productive strategies such as health buffers and insulators against stress and depression, based on and modified from the work of Nowack’s (1990) positive cognitive strategies, Frydenberg and Lewis’ (1997) work on productive strategies, and Schaffer’s (1996) health buffers. At the bottom of the *DS* sheet, participants recorded *Happiness Self Ratings (HSR)*, on a scale of 0 to 10 where 0 = not at all happy, 5 = moderately happy and 10 = as happy as possible. This was intended to encourage participants to focus on and thus create a positive, healthy mindset that would lead to productive outcomes, such as feelings of happiness.

### *Procedure*

The Bond University Research and Ethics Committee approved all research procedures and materials. Managerial permission was obtained before material

advertising the study was placed on notice boards and distributed to potential participants at retirement villages, seniors' groups and community facilities such as shopping centres and libraries. Due to illness, death, relocation, a return to the paid workforce, or personal commitments, not all those who initially expressed interest in participating were available. Eighty-four participants completed the study requirements.

Participants were matched on the basis of their *Depression Happiness Scale* pre-test scores. Then one from each pair was randomly assigned to either the treatment group or the control group. Equal numbers of males and equal numbers of females were assigned to each group, thus controlling for gender effects. Matched pairing ensured that the treatment group and the control group were equivalent groups, and that the results obtained in the experiment could be attributed to manipulation of the independent variable, the treatment program, rather than to any other characteristics of the participants in the different groups. It ensured the comparability of participants by making sure they all had a similar *DHS* pre-test score.

Participants in the treatment group were divided into two separate groups for presentation of the treatment program. The program consisted of weekly meetings for each group of two hours duration for six weeks, in a meeting room at the Robina Library Community Centre, Gold Coast, Queensland. Each psychoeducational group session of two hours comprised one hour of educational input based on cognitive behavioural theory, in which the emphasis was placed on the acquisition of various cognitive and behavioural coping skills, which insulate against stress and depression. This was followed by a fifteen-minute break for social interaction, and then whole group and small group exercises, which included behavioural rehearsal, discussion of specific topics, and of homework assignments. Discussion of individual participant

issues was permitted only if it had a direct connection with the material presented in that particular session, thus keeping a group rather than an individual focus.

Homework included daily completion of the coping *DS* sheet, and a self-rating of participants' overall daily happiness levels (*HSR*). Handouts were distributed, and participants also had the opportunity to share relevant material such as poems, articles and books. An outline of the six sessions appears in Appendix C.

At the conclusion of the six-week program participants completed a post-test *DHS* questionnaire and an evaluation questionnaire. Participants in the control group completed a post-test *DHS* questionnaire at home, and returned it by post in a pre-paid envelope. At this time a history effect happened. This refers to an event which may have an influence on the effects of the experiment, but is not related to the intervention. A few days before completion of the posttest, "September 11, 2001" occurred in the USA.

Both the treatment and control participants completed a follow-up *DHS* post-test, six weeks after completion of the treatment program. The treatment participants also completed a further follow-up evaluation questionnaire.

The treatment participants were invited to attend a final two-hour session for feedback of group results. Only one participant, who had relocated, did not attend this session. In addition, written individual results were distributed. The researcher was available at the completion of the session, to discuss these results with participants who wished to do so.

## Results

### *Demographic Profile of Participants*

Participants (n = 84) comprised 40.5% males and 59.5% females. The majority was married or partnered (58%), while 12% were divorced, 5% separated, 21% widowed, and 4% had never married. Thirty nine percent were aged 60-65 years,

35% were aged 65-70 years, 20% were aged 70-75 years and 6% were aged 75-85 years.

#### *Exploratory Analyses of the Main Dependent Variables*

The main dependent measures the *Depression Happiness Scale* and the *Daily Strategies* were inspected for normality and outliers using histograms, box-plots and standardized measures of skew and kurtosis. Analyses were conducted for each time period (pre-test, post-test, and six-week follow-up). Given the sample size ( $n = 84$ ), standardized measures for skew and kurtosis were evaluated using a cut-off of 1.96 ( $p < .05$ ).

Visual inspection and examination of standardised skew values revealed significant negative skew for both the *DHS* and *DS* variables at each time period. On closer visual inspection, it was seen that this skew could be attributed to the fact that most subjects responded very favourably. However, the skew was in the same direction, so was not considered problematic. Standardised kurtosis values indicated some small, but non-significant negative kurtosis that was not problematic.

The distribution of *DS* scores for the groups revealed several univariate outliers, using a critical value of  $\pm 1.96$ . These data points were examined, but removal of them could not be justified, because they had little impact on the results, and they appeared to belong to the population investigated. When these scores were removed, they made no significant change to the results, and therefore remained in the analysis. For the *DHS* variable, however, three of the outliers identified were problematic to the analysis. Two control group participants and one treatment group participant had scores that impacted significantly on the results, and did not appear to be part of their respective populations. Consequently, these participants' scores were removed for analyses involving the *DHS* variable.

*Descriptive Statistics*

Table 5

*Means and Standard Deviations of DHS scores for Group x Gender x Treatment**Mixed Factorial ANOVA.*

		Treatment					
Group	Gender	<u>Pre-test</u>		<u>Post-test</u>		<u>Follow-up</u>	
		Mean	SD	Mean	SD	Mean	SD
Control	Male	72.47	11.12	71.40	10.46	74.53	12.47
	Female	74.80	12.94	73.68	11.64	78.12	9.65
Treatment	Male	72.80	10.49	75.80	12.69	83.20	9.37
	Female	76.77	13.32	80.31	12.14	82.19	10.57

Table 5 summarizes the Means and Standard Deviations for each of the variables for both the group and gender conditions, over time.

*Main Analyses*

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 15.0. The main analyses included two-mixed factorial ANOVAS and correlation analysis. A Multivariate Analysis of Variance (MANOVA) using DHS and DS scores could not be undertaken, as DS scores were not obtained for the control group.

The cell sizes in the analysis were relatively equal (control n = 40; treatment n = 41) and sufficiently large to produce adequate power in the analysis (Howell, 2002). Following Cohen's (1988) conventions for Partial Eta Squared, an

effect size of .01 was considered small, .06 was considered medium and .15 was considered large.

Hypothesis 1 tested homogeneity between the treatment group and the control group. Hypothesis 2 compared *Depression Happiness Scale* scores for the treatment group and the control group. Hypothesis 3 compared *DHS* scores for the treatment group over time. Hypothesis 4 compared male and female *DHS* scores over time. To test Hypotheses 1 to 4 the data were entered into a 2 x 2 x 3 mixed factorial ANOVA that considered Group (treatment vs. control) and Gender (male vs. female) as the between participants factors, and Treatment (pre vs. post vs. follow-up) as the within participants factor. The dependent variable was *DHS* scores. The Means and Standard Deviations were calculated for each of the variables, and are summarized for both the group and gender conditions in Table 5.

Investigation of ANOVA assumptions revealed that Homogeneity of Covariance (Box's *M*) was violated ( $p < .01$ ). Further inspection of variability estimates indicated that the violation was unlikely to be problematic. For the between group variables, the assumption of Homogeneity of Variance was met (Levene's Test of Equality of Error Variances,  $p > .05$ ). For the within group variable, the Assumption of Sphericity was not met (Mauchely's  $W = .87$ ,  $p = .006$ ). Consequently, a Huynh-Feldt correction was applied.

The results revealed a significant main effect for Group,  $F(1, 77) = 5.67$ ,  $p = .020$ ,  $\eta^2 = .069$ . This represented a medium effect (6.9% variance explained), showing that across all Gender and Treatment conditions, *DHS* scores for the treatment group ( $M = 78.51$ ,  $SD = 1.29$ ) was greater than the control group ( $M = 74.17$ ,  $SD = 1.30$ ).

Follow-up pair wise comparisons between the treatment and control groups were undertaken at pre-test, at post-test, and at six-weeks follow-up (Figure 16). In

support of Hypothesis 1, there was no difference between treatment and control groups in pre-test scores,  $F(1, 77) = 0.16, p = .686, \eta^2 = .002$ . Hypothesis 2 was also fully supported, with significant differences between treatment and control groups at both post-test,  $F(1, 77) = 4.13, p = .046, \eta^2 = .051$  and at six-weeks follow-up,  $F(1, 77) = 7.00, p = .010, \eta^2 = .083$ . At post-test a small effect showed that *DHS* scores for the treatment group ( $M = 78.05, SD = 1.91$ ) was significantly higher than the control group ( $M = 72.54, SD = 1.93$ ). The difference between the treatment group ( $M = 82.70, SD = 1.70$ ) and control group ( $M = 76.33, SD = 1.71$ ) at six-weeks follow-up showed a larger effect.

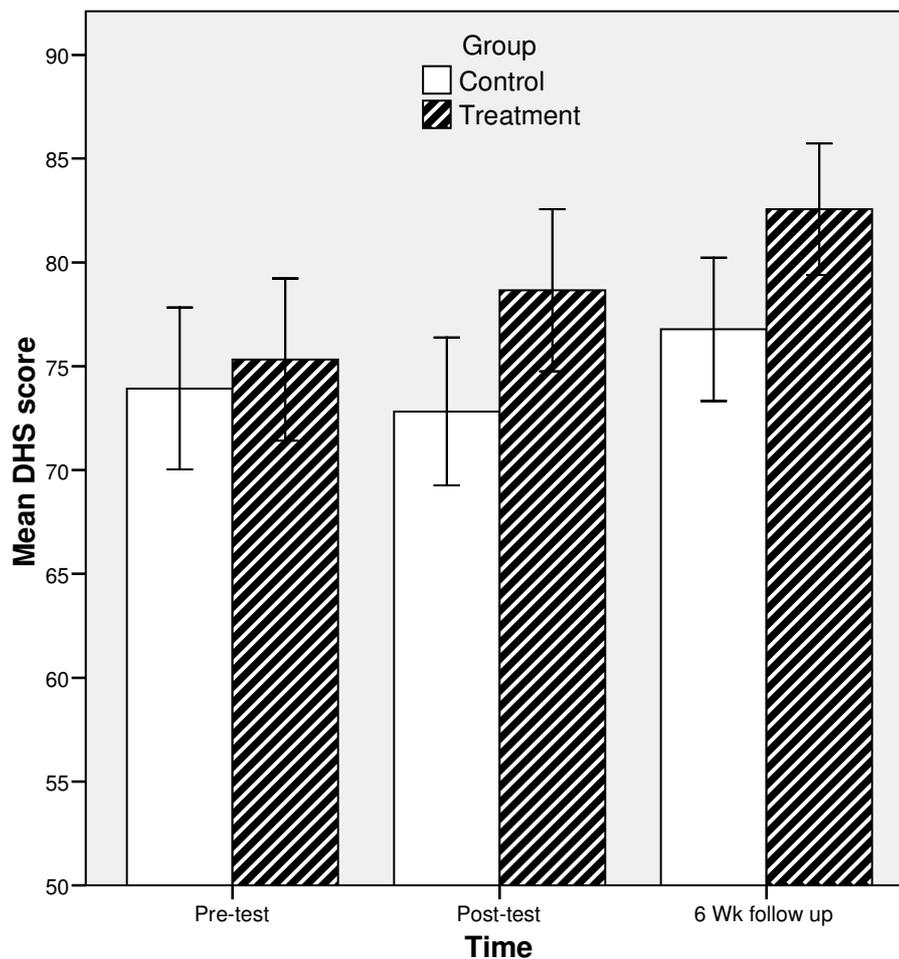


Figure 16. Comparison of Treatment and Control groups on *DHS* scores at each time period (error bars represent 95% confidence intervals).

There were no other significant three-way or two-way interactions found for the analysis, indicating that the differences found between the control and treatment groups were not influenced by gender or time of testing.

There was no significant effect of treatment for the control group, indicating that *DHS* scores did not increase across time. However, there was a significant effect of Treatment for the treatment group,  $F(1.89, 145.14) = 5.59, p = .005, \eta^2 = .068$ , which provided some support for Hypothesis 3. This difference represented a medium effect size, showing that 6.8% of the variability in *DHS* scores was explained by treatment. Post-hoc pair wise contrasts using corrections for Type I error rates showed that, in support of Hypothesis 3, *DHS* scores had significantly increased from pre-test ( $M = 74.21, SD = 1.42$ ) to six-weeks follow-up ( $M = 79.51, SD = 1.20$ ). However, the post-test scores ( $M = 75.30, SD = 1.36$ ) did not significantly increase from pre-test as predicted.

Hypothesis 4 was not supported. There was no significant main effect of gender, and no differences between males and females at pre-test, post-test or six-week follow-up.

Hypothesis 5 tested whether the happy group used more daily strategies than the less happy group. Hypothesis 6 tested whether reported use of the daily strategies for the treatment group increased over time. To test Hypotheses 5 and 6 the data for the treatment group only were entered into a 2 x 3 mixed factorial ANOVA, that considered Happy (happy vs. less happy) as the between participants factor, and Treatment (pre vs. post vs. follow-up) as the within participants factor. The dependent variable was *DS* scores. The Means and Standard Deviations were calculated for each of the variables. These are summarized for happy conditions in Table 6.

Investigation of ANOVA assumptions revealed that Homogeneity of Covariance (Box's  $M$ ) was violated ( $p < .01$ ). Further inspection of variability estimates indicated that the violation was unlikely to be problematic. For the between group variables, the assumption of Homogeneity of Variance was met (Levene's Test of Equality of Error Variances,  $p > .05$ ). For the within group variable, the Assumption of Sphericity was not met (Mauchely's  $W = .74$ ,  $p = .003$ ). Consequently, a Huynh-Feldt correction was applied.

Table 6

*Means and Standard Deviations of DS scores for Happy x Treatment Mixed Factorial ANOVA.*

Group	Treatment					
	Pre-test		Post-test		Follow-up	
	Mean	SD	Mean	SD	Mean	SD
Happy	12.00	2.90	13.57	3.31	15.95	1.56
Less happy	12.10	3.19	14.19	1.86	15.61	1.75

The results revealed no significant main effect for the Happy Group,  $F(1, 40) = 0.06$ ,  $p = .809$ ,  $\eta^2 = .001$ , and no significant interaction,  $F(1.69, 67.45) = 0.48$ ,  $p = .608$ ,  $\eta^2 = .001$ . Therefore Hypothesis 5 was not supported, as no significant differences were found between participants classified as Happy or Less happy.

In support of Hypothesis 6, there was a significant main effect for Treatment,  $F(1.69, 67.45) = 27.49$ ,  $p < .001$ ,  $\eta^2 = .407$ . This difference represented a very large effect size, showing that 40.7% of the variability in  $DS$  scores was explained by

treatment. Post-hoc pair wise comparisons using corrections for Type I error rates showed that *DS* scores had significantly increased from pre-test ( $M = 12.05$ ,  $SD = 0.47$ ) to both post-test ( $M = 13.88$ ,  $SD = 0.41$ ) and six-weeks follow-up ( $M = 15.79$ ,  $SD = 0.26$ ). Additionally the increase from post-test to six-weeks follow-up was also significant.

Correlation analysis was undertaken to test Hypothesis 7: *Happiness Self Rating* scores will positively correlate with *Depression Happiness Scale* scores at both post-test and at six-weeks follow-up. Inspection of bivariate scatter plots revealed one case that was identified by Cook's distance as a significantly influential score. Consequently it was removed from the analysis. After removal, assumptions of normality, linearity, and homoscedasticity were met. Pearson's correlation coefficients showed no significant correlation between *HSR* scores and *DHS* scores at either post-test ( $r = -.171$ ,  $p = .285$ ) or at six-weeks follow-up ( $r = -.178$ ,  $p = .265$ ), providing no support for Hypothesis 7.

### Discussion

Mixed results were obtained for Study Two, with some hypotheses supported, and others not supported. Specifically, Hypothesis 1, (at pre-test, there will be no significant difference in *DHS* scores, between the control group and the treatment group) was supported,  $F(1,77) = 0.16$ ,  $p = .69$ ,  $\eta^2 = .002$ . This indicated homogeneity between the two groups. This was expected, as the design, involving matched pairing by pre-test *DHS* scores, followed by random assignment of one from each pair to the control group and the other to the treatment group, facilitated equality of the groups. Since the groups were comparable, a threat to validity was reduced. In addition, an equal number of males and females was assigned to each group, thus controlling for any difference in gender effects.

Hypothesis 2, (at post-test and at six-week follow-up, *DHS* scores for the treatment group will be significantly higher than *DHS* scores for the control group, indicating that participants in the treatment group were happier than participants in the control group), was fully supported, with significant differences between treatment and control groups at both post-test,  $F(1,77) = 4.13, p = .046, n^2 = .051$  and at six-week follow-up,  $F(1,77) = 7.00, p = .010, n^2 = .083$ . This result suggests that the program for the treatment group was successful, and as gains were increased over time, it suggests that participants continued to learn, practise, internalise and maintain coping skills.

Hypothesis 3, (at post-test and at six-week follow-up, *DHS* scores for the treatment group will be significantly higher than at pre-test, indicating that participants are significantly happier at post-test, and at six-week follow-up), was partially supported. Scores from pre-test ( $M = 74.21, SD = 1.42$ ) increased significantly at six-week follow-up ( $M = 79.51, SD = 1.20$ ). However, although there was a small effect at post-test ( $M = 75.30, SD = 1.36$ ), the increase was not significant.

The results for Hypotheses 2 and 3 may be explained by a historical artifact. On 11 September 2001, nearly 3,000 people died when two airliners, hijacked by terrorists, slammed into the twin towers of the World Trade Centre in New York, USA. Terrorists crashed another plane into the Pentagon outside Washington, killing about 180 people. A fourth airliner, with 44 people aboard, crashed in Pennsylvania after passengers staged a rebellion against terrorists. Many in the world remain on a heightened state of terrorist alert. These tragic events took place six days before participants completed the post-test of the *DHS*. Several participants remarked that they were depressed by news of this event. Despite the fact that this history effect may have influenced scores on the post-test, these results were checked by the use of the control group, because this group was also exposed to news of this history effect, and

thus their results would have been equally affected. An observation of results for both groups revealed that at this time, the means from pre-test to post-test for both males and females in the control group actually decreased, whereas the means from pre-test to post-test for both males and females in the treatment group increased, indicating that the intervention program had given participants in the treatment group the resilience to be less affected by the tragic event than the control group participants. Increased interpersonal bonding due to the perception of an external threat is a well-documented phenomenon (Cummins, 2006). This phenomenon may have occurred with the treatment group.

Hypothesis 4, (at pre-test, at post-test, and at six-week follow-up, *DHS* scores for females will be significantly lower than *DHS* scores for males, indicating that females are more depressed than males), was not supported. This result does not concur with much of the literature (Anstey & Luszcz, 2002). However, Sharpley & Yardley (1999) found no significant gender difference in their study with retirees. In addition, significant gender differences in Study One were small. Hyde (2005) proposes the similarities hypothesis that claims males and females are similar on most, but not all psychological variables. She believes that claims of gender differences are over inflated.

Hypothesis 5, (for the treatment group, participants whose *DHS* scores were above the *DHS* mean, i.e. the happy group, are more likely to report more use of the daily strategies, than participants whose *DHS* scores were below the *DHS* group mean, i.e. the less happy group), was not supported. This result indicates that factors other than the daily strategies were operating to discriminate happiness levels between the two groups. As a learning tool, over the period of the group intervention, participants completed the daily strategies sheets each evening. On an individual basis, most participants increased their scores. However, some participants did not

increase their scores, indicating that the latter had not changed their behaviour. Only one participant significantly decreased his score, and this decrease could have been due to the stress he felt by his wife's leaving him at this time. A few participants' scores remained the same. At six-week follow-up, participants' reported use of strategies had further increased.

Hypothesis 6, (for the treatment group, reported use of the number of daily strategies will increase significantly from pre-test [ $M = 12.05$ ,  $SD = 0.47$ ] to post-test [ $M = 13.88$ ,  $SD = 0.41$ ], and from pre-test to six-week follow-up [ $M = 15.79$ ,  $SD = 0.26$ ]), was also supported. In addition, there was also a significant increase from post-test to six-week follow-up.

Hypothesis 7, (for the treatment group, there will be a positive correlation between the *DHS* scores and the *HSR* scores, at post-test and at six-week follow-up), was not supported, suggesting that indirect rating of depression-happiness on an objective published test, such as the *DHS*, is more reliable than a single self-rating of happiness.

#### *Feedback from Participants*

Participants' open comments on evaluation forms reported overwhelming appreciation that they had had the opportunity to be part of what they valued as a unique experience. The experience elevated them from their comfort zones, and presented a challenge, that motivated them to self-improvement, and to enhancement of their happiness levels.

Participants expressed that they placed significance on working together with peers in a purposeful way towards a common goal, which was to enhance happiness. The added benefits for participants were the social interaction and sense of belonging, as they found the experience more meaningful and satisfying as members of this type of group, rather than members of social groups, to which they belonged. They

reported that the knowledge they gained, as well as coping strategies and skills they acquired, equipped them with the confidence to make significant changes in their lives, and to be more assertive about getting their needs met. For example, one participant, who had been residing with her daughter's family, made the decision to move in with her male companion, an action she said she would not formerly have done, out of fear of family displeasure and negative judgment. She claimed that she had acquired the confidence to trust in herself to deal with the consequences of her decision to move in with her companion.

Participants remarked that they liked the cognitive behavioural approach, because at the end of the program they felt more in control, and ready to take responsibility for their own lives. Those who made significant changes were aware that these changes came about through their own efforts of learning and practising coping skills. They expressed confidence that they could maintain these changes over time. Above all, participants enjoyed learning skills associated with "happiness".

#### *Overview*

When interpreting results caution must be exercised. The findings of Study Two are relative only to the Gold Coast Queensland, from where the retiree participants were drawn, and thus should be cautiously generalized to other areas. The findings show that very positive benefits are to be gained from a psychoeducational program promoting productive coping strategies, and that depression is not an inevitable part of normal ageing. These strategies comprised leading a healthy balanced lifestyle that embraced constructive actions, good feelings and the APS motto for 2005, "*good thinking*". This study also gives a research basis and rationale for programs for retirees, programs that go beyond the narrow focus on financial matters and physical health. The research demonstrates that those with sufficient financial means for survival and a few comforts, despite their negative life

experiences, can learn better coping strategies that allow them to deal with stress, and insulate themselves against depression while enhancing their happiness. Unlike developing countries, Australia provides a government pension to eligible retirees who need it. This means that the basic needs of retirees, capable of independent living are met.

Given the overwhelmingly enthusiastic response of participants in this intervention and others, such as Chalip's study (2004) concerning a walking group intervention with retirees, and Klokiw's study (2003) concerning a social skills group, it would appear that the government could add value to retirement, by providing funding for group programs, that give retirees the opportunity for enhancing health and well-being. This would also provide a valuable next phase of research.

In Australia, the main model of health care is biomedical, and little account is taken of psychosocial, as well as biological explanations (APS Position Paper, 2000, p.14). Proactive psychoeducational programs that focus on the acquisition of coping skills, such as the program delivered in Study Two, provide training for prevention of physical and mental health disorders, whereas treatment is an added burden on society. Access to coping strategies and social support may ameliorate the effects of stressors or serve as a buffer between stressors and outcomes such as illness (Biegel, Sales, & Schulz, 1991). Funding for this type of psychoeducational intervention is cost effective, as the elderly continue to give back to society through an enormous amount of volunteer work and child minding for family.

These interventions/programs have implications for counselling practice, and encourage more professionals to become involved in a positive, preventive approach based on strengths, rather than deficits. The literature reveals that fewer psychologists have been attracted to working with the elderly than other age groups (APS Position Paper, 2000 p.5; Koder, & Ferguson, 1998).

Depression is not an inevitable part of normal ageing, and this study has shown that the elderly can respond well to a psychoeducational intervention, thus enhancing their happiness levels. The significance of this research is the contribution and the influence it may make in encouraging future research on a much larger scale, research that may impact policy and practice for the aging population, by emphasizing the strengths, rather than the deficits of this age group. Most retirees continue to enjoy healthy, productive lives, while making vast contributions to society.

## CHAPTER FOUR

### Overview and Conclusions

The two studies of this thesis were undertaken to investigate the link between the use of effective coping strategies and mental-emotional health, as measured by the *Depression Happiness Scale*. The first study took a snapshot of Gold Coast volunteer retirees, to ascertain “what already existed without manipulation”. It was found that neither demographics nor involvement in activities, significantly influenced depression-happiness levels, as measured by the *DHS*. A gender effect was found for depression-happiness levels, and for the choice of coping strategies/styles. Females were less happy than males. Males used significantly more pro-active, cognitive-behavioural coping strategies than females, but females used significantly more positive thinking, and a significantly more productive, psychosocial style than males. It was also found that happy retirees used significantly more constructive strategies/styles than less happy retirees. Thus a significant association between the use of effective coping strategies/styles and happiness was established.

Study Two investigated “what could be” through the provision of a psychoeducational program, aimed to optimise happiness. As Study One found that happy participants behaved differently than less happy participants, in that they used more effective coping strategies/styles, the rationale for Study Two questioned whether participants could be taught effective coping skills, that would enable them to behave differently, in order to maximize their happiness levels. Indeed, this was found to be so, as *DHS* scores both at post treatment and at six-week follow-up, for the treatment group, showed a significant difference, when compared with *DHS* scores for the control group. Unlike for Study One, a gender effect was not found for Study Two.

The different findings for gender between the two studies may indicate bias, in that those who volunteered to participate in the first study, which required participants to complete a survey anonymously, were different than those who volunteered for Study Two, which required attendance, and participation in a six-week psychoeducational program.

These findings suggest that this form of training as preventive treatment is empowering and beneficial to retirees, and consequently also to all of those with whom they are connected. However, for many people, cost considerations prevent access to preventive psychological services. Moreover, the preventive nature of services does not have the recognition from governments, more concerned about economics, that it deserves.

The early “baby boomers” have started to retire from full-time paid employment, and the trend is now to retire early, and maybe seek some part-time paid work. The expectation is that because of better living conditions and medical advances, this swelling population will live much longer than previous generations. This means that the period between leaving full-time paid work and death is much longer than ever before. In general, “baby boomers” enjoy good health, are well educated, and have high expectations from life. They wish to “spend the children’s inheritance,” and intend to live life to the full, while they can. With an ever-increasing population of retirees who are living much longer, the government now needs to focus more on retirees’ psychosocial needs, than formerly was required.

Recent media releases (Australia Government, 2006; Australian Psychological Society, 2006) report that in February 2006, The Council of the Australian Government committed to making major changes to the provision of mental health in Australia, and is developing a five-year action plan. To this end, in April 2006, the

Prime Minister of Australia, John Howard, announced the allocation of \$1.8 billion dollars additional funding for mental health. Hopefully this funding will not only cover the mental health treatment of the elderly, but also make provision for psychoeducation in the prevention and management of chronic illness. These programs would help participants to manage their stress, create a resilient mindset to cope with lifestyle problems, and as a consequence enhance happiness levels. Community psychoeducation is more cost effective than later secondary interventions in the form of individual therapy.

The findings of both studies add to the research base, as similar studies specifically with retirees, have not been reported in the literature. Most information aimed at retirees focuses on financial security, physical health and accommodation options, rather than specifically optimising happiness and well-being in retirement. As such, these studies need to be replicated with sufficiently large numbers of participants in future research in the area, so that findings can be generalised to retirees in other geographical locations, and also to retirees under the age of 65. A six-week follow-up for Study Two showed a further improvement in results, as the participants continued to use the strategies taught on the program. It is suggested that future research test for long-term effect with a yearly and two yearly follow-up.

Evaluations from the participants in Study Two reported overwhelmingly that they found the program a most beneficial and worthwhile experience in equipping them with tools to maintain and enhance their happiness levels. Participants believed that happiness was a worthwhile goal to pursue, as when happy, they displayed more desirable characteristics, were more productive, felt healthier, their relationships were more satisfying, and they were not perceived as a burden on their families.

Findings from this research have implications for future research, in that studies require a much larger representative sample from different geographical areas. The results of this replication could then be used to inform government policies as outlined below.

### *Recommendations*

1. Given that the current research has some limitations and cannot be generalised to the entire retiree population, future research replicating the studies is required. This research should be replicated on a more representative sample and on a larger scale that provides strong statistical power, and also investigates the long-term effects.
2. The findings from such a replication may be used to influence the government to include happiness indicators in social policies aimed to optimise well-being in society. These policies would create an environment for increasing happiness and reducing misery, and they would focus on promoting the value of relationships, friendships, long-term committed marriages, the importance of stable family life and family values, and respect for elderly family members. Work and leisure opportunities would emphasize cooperation, rather than stressful competition, and would value the contribution of peoples' strengths and talents, rather than disadvantage them through a focus on deficits.
3. Such research would enable government policies to be developed that actively challenge ageism, as long held negative stereotypes of the over 65 year age group are no longer appropriate. Recognition of older people as resources in the community, rather than as burdens, can be achieved through government policies. These policies need to raise awareness in the general population, that with adequate

resources, older people can make adjustments that equip them to contribute to society through the last developmental life stage.

4. Government policies, which recognise the contributions of the elderly and the value of the family, may decrease the beliefs propagated through the media that happiness is achieved through material wealth.

5. Continued research in this area will hopefully result in some recently allocated funding being directed towards the delivery of psychoeducational group programs to enhance mental/emotional health in retirees.

This research offers an optimistic view for the future. May retirees celebrate successful ageing within the framework of a happy and productive retirement. Happy people are more productive, have better relationships, and contribute more to the common good (Layard, 2005).

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Appendix A

Bond University Research Ethics Committee Approvals

Bond University Research Ethics Committee (BUHREC) approved Study One

(R0036) in 1999 and approved Study Two (R00148) in 2001. Documentation is held

in the BUHREC office, Bond University, Gold Coast, Queensland.

Appendix B

Study One

B1 Flyer

## Bond University Retirement Survey

As people are now living longer, they are spending more time in retirement. Much current research has focused on retirees younger than 75 years. A team of student researchers from Bond University wishes to find out how people aged 65 to 85 years cope with retirement. Therefore your input is important to us.

We invite you to participate if you are:

- (a) Retired from the full-time paid workforce
- (b) Aged 65 to 85 years
- (c) Living independently on the Gold Coast (that is, you require no help with normal daily living)

If you would like to participate, talk to us now and receive a survey, which you may complete anonymously at home, and return to us in the prepaid, addressed envelope or:

- (a) Phone 5595 1133
- (b) Leave your name and contact details
- (c) We will contact you and explain the study
- (d) If you agree, we will send you a survey for you to complete anonymously, and return in the prepaid, addressed envelope provided.

B2 Press Release

### Press Release

A team of Bond University student researchers announced today that they are launching one of the largest studies of retired persons ever conducted on the Gold Coast. The Gold Coast has one of the highest proportions of retired people in Australia. Through studying the experiences of retired people living on the Gold Coast, the researchers expect to identify factors that contribute to quality of life during retirement.

Professor Chris Sharpley, who is leading the team, said “We are looking for over 600 retired people to participate in our study. People use different coping strategies to make the adjustment to retirement. What we want to do is determine which strategies are used most often, and under what circumstances each is effective. People will be asked to complete surveys about their experiences in retirement. Their answers will be confidential, but will be pooled with others to give a complete picture of how people adjust to retirement. This is the International Year of Older Persons, and we wish to find out what are the ways in which some people adjust to retirement, so more effective programs can be developed.”

The research team is looking for volunteers to participate in the study. If you are retired, are aged 65 to 85 years, and would like to participate, contact the team on 5595 1133.

For further information regarding this press release, contact Professor Chris Sharpley on 5595 2504.

B3 Telephone Script

## Telephone Script

Hello, may I speak to Mr/Mrs/Ms                    please?

Good morning/afternoon Mr/Mrs/Ms                    . My name is                    . I am from Bond University, and I am returning your call about the retirement study.

To check your eligibility to participate in the study, I first need to ask a) are you aged between 65-85 years, and b) are you living independently? That is, you need no help with normal daily living.

Would you like me to give a brief explanation of our study?

We are interested in finding out what strategies retirees use to cope with adjustment to retirement, and how depressed/happy retirees are. We are also interested in whether there are differences between males and females in ways of coping and in depression/happiness levels. From answers to our survey, we hope to develop more effective programs to help people make a better adjustment to retirement.

To obtain these answers we require participants to complete some questionnaires anonymously.

Would you like to participate? (If yes, continue).

You will receive in the mail detailed information about the study, the questionnaires to complete, and a reply paid addressed envelope in which to return the questionnaires to the university.

In the package you will find

- (a) An information sheet explaining exactly what is in the package and what you need to do
- (b) An explanation statement telling you what the study is about
- (c) A sheet asking for background information, and four separate questionnaires.

Are there questions you would like me to answer for you now, Mr/Mrs/Ms                    ?

In order for me to post the package to you, I will need your postal address. May I have that now please?

Mr/Mrs/Ms                    I shall post the package to you this week. Please take your time when completing the survey, and answer only the questions that you feel comfortable in answering. We would appreciate it, if you would return the survey to us within a week after you receive it.

If you know any other retirees who are eligible and willing to participate, would you please pass on our phone number to them?

Thank you for your time Mr/Mrs/Ms                    .We appreciate your willingness to help.

Participants' Package

B4 Contents

## Contents of this Package

Thank you for taking the time to participate in this study. We would like to know about your experience of retirement. Your feedback will help us to develop better pre-retirement educational programs.

To help you to understand what needs to be filled out in this package, please follow these step- by- step instructions.

- (a) Read the Explanatory Statement carefully, please. It tells you about our study and how your responses will be kept anonymous. Keep this statement for yourself.
- (b) Background Information provides us with important statistical data. Please complete this.
- (c) Please complete questionnaire numbers 1, 2, 3, 4, and 5.
- (d) Please place the background information, and all five questionnaires in the pre-paid, addressed envelope, and post it to us within one week of receiving this package.

If you have any questions about this package, or would like further information, please call us on 07 5595 1133.

Thank you.

B5 Explanatory Statement

R0036

An Investigation into the Relationship between Coping Strategies and Adjustment to Retirement.

We are collecting data as a team. Then the data will be used for individual research, under the supervision of Professor F. Christopher Sharpley, Department of Psychology at Bond University.

The aim of this research is to investigate the relationship between coping strategies and adjustment to retirement. We invite retirees, 65 to 85 years and living independently on the Gold Coast, to be participants in the project by completing a survey, which would take about 30 minutes. If you choose to participate, then please complete and return the survey. You need not answer any questions that you feel uncomfortable about answering. You may withdraw from the project at any time.

Your responses are important to us and will be treated as confidential. To protect your privacy, do not put your name on the survey. Professor Sharpley and the student research team are the only people who will have access to the completed surveys, which will be kept in securely locked premises for five years. We shall publish only combined findings, meaning that no individual responses will be identified.

The act of completing and returning the survey acknowledges that you have read this letter, and you will be considered as an informed, consenting participant. Please keep this letter for yourself. If you require further information or have any questions, please telephone us on 07 5595 1133. If you have any complaints about this research project, please contact Ms Christan MacKensie at Bond University, Queensland, 4229, telephone 07 5595 1058. Thank you for your time.

Professor Christopher Sharpley, and the student research team Pamela Chalip, Moyna Glenn Goold, Bernadette Klokiw, Shae Russell.

B6 Background Information

### Background Information

This background information is to be used for statistical purposes only. Your responses are anonymous.

Instructions for participants:

For each number, please circle the appropriate answer, and/or fill in the blank.

1. Male                      Female

2. In what year were you born?

3. In what country were you born?

4. How many years have you lived in Australia?

5. What languages do you speak fluently?

6. Current marital status

(a) I have a partner now and have been with this partner for            years.

(b) I do not have a partner now and have not had a partner for            years.

(c) I have never had a partner (i.e., not married and not in a defacto relationship).

7. Current Living Arrangement

(a) I am living in a retirement village and have done so for    years.

(b) I am not living in a retirement village.

or

If you are not living in a retirement village, then circle one of the following:

(a) I live in and own my own home and have done so for    years.

(b) I live in a rented home and have done so for            years.

(c) I live with relatives and have done so for years.

(d) Other. Please describe.

8. My source of income now includes (please circle all sources)

- (a) Any type of government pension
- (b) Superannuation
- (c) Independent

9. My income in the year before I retired was in the following range:

- |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| (a) \$9,999 or less      | (b) \$10,000 to \$19,999 | (c) \$20,000 to \$29,999 |
| (d) \$30,000 to \$39,999 | (e) \$40,000 to \$49,999 | (f) \$50,000 to \$59,999 |
| (g) \$60,000 to \$69,999 | (h) 70,000 to \$79,999   | (i) \$80,000 to \$89,999 |
| (j) \$90,000 to \$99,999 | (k) \$100,000 or more    |                          |

10. My income now is in the following range

- |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| (a) \$9,999 or less      | (b) \$10,000 to \$19,999 | (c) \$20,000 to \$29,999 |
| (d) \$30,000 to \$39,999 | (e) \$40,000 to \$49,999 | (f) \$50,000 to \$59,999 |
| (g) \$60,000 to \$69,000 | (h) \$70,000 to \$79,000 | (i) \$80,000 to \$89,999 |
| (j) \$90,000 to \$99,999 | (k) \$100,000 or more    |                          |

11. What was the highest educational level you achieved?

- (a) Primary
- (b) Secondary
- (c) Technical
- (d) University, undergraduate
- (e) University, postgraduate

12. In the year before I retired

- (a) I was in paid employment on a full-time basis
- (b) I was in paid employment on a part-time basis
- (c) I was on a pension, such as unemployment or disability
- (d) I was in unpaid work, such as housekeeping, childcare, volunteer duties

13. Over my life, my occupation has mostly been

(a) Self employed as a

(b) Employed as a

(c) Unpaid work doing

14. What was the single main reason for retirement?

(a) Illness/disability

(b) Redundancy at work

(c) Financial independence

(d) Other, please explain

15. I consider myself retired for \_\_\_\_\_ years

16. Over the past six months, I would say that my physical health has been:

(a) excellent (b) very good (c) good (d) not so good (e) poor

17. Over the past six months, I would say my mental and emotional health has been:

(a) excellent (b) very good (c) good (d) not so good (e) poor

B7 Questionnaire 1

Coping Strategies for Adjustment to Retirement (Chalip, Glenn Goold, Klokiw, Russell, 1999).

## Questionnaire 1

Please answer each question by placing a tick in the column that best describes your reaction to the corresponding statement, where:

CA = completely agree      MA = moderately agree      SA = slightly agree      UN = undecided

SD = slightly disagree      MD = moderately disagree      CD = completely disagree

	CA	MA	SA	UN	SD	MD	CD
1. I physically avoid stressful situations.							
2. It is best for me not to think about stressful situations.							
3. I try to avoid feeling bad about stressful situations.							
4. I do not set goals for my life now that I am retired. I just let things happen.							
5. I do not believe it is important to set goals for retirement.							

	CA	MA	SA	UN	SD	MD	CD
6. I do not feel comfortable when I plan what I am going to do, now that I am retired.							
7. I participate in a number of activities now that I am retired.							
8. I think retirement is a time to be involved in activities.							
9. I feel good about being active in retirement.							
10. My everyday activities indicate I do not have a very positive outlook.							
11. I concentrate on the negatives of everyday life.							

	CA	MA	SA	UN	SD	MD	CD
12. Keeping a positive outlook day to day is not enough to make me feel happy.							
13. I keep in close contact with my family.							
14. I value family contact.							
15. I am comforted by family contact.							
16. I pray regularly.							
17. I have faith in God, or another Supreme Being.							
18. A belief in God, or another Supreme Being makes me feel happy.							
19. I exercise regularly.							

	CA	MA	SA	UN	SD	MD	CD
20. I believe regular exercise does contribute to a healthy lifestyle.							
21. I feel exhilarated after a pleasant walk.							
22. I would never call on others for help.							
23. I am not convinced that back-up help is necessary.							
24. I don't feel happy about receiving help from others.							
25. I take on only what I can easily cope with.							
26. I believe a stress free life is beneficial.							

	CA	MA	SA	UN	SD	MD	CD
27. I feel better about myself when there are no unwarranted demands on me.							
28. I use no strategies to guide me through retirement.							
29. Fate rather than my choices controls life.							
30. I feel uneasy using strategies to help me.							

B8 Questionnaire 2

*Depression Happiness Scale* (McGreal & Joseph, 1993).

## Questionnaire 2

A number of statements that people have used to describe how they feel are given below. Read each one and tick the column that best describes how frequently each statement was true for you in the past seven days, including today. Some statements describe positive feelings and some describe negative feelings. You may have experienced positive and negative feelings at different times in the past week.

	Never	Rarely	Sometime	Often
I felt sad				
I felt I had failed as a person				
I felt satisfied with my life				
I felt mentally alert				
I felt disappointed with myself				
I felt cheerful				
I felt that life wasn't worth living				
I felt satisfied with my life				
I felt healthy				
I felt like crying				
I felt I had been successful				
I felt happy				
I felt I couldn't make decisions				
I felt unattractive				
I felt optimistic about the future				
I felt life was rewarding				
I felt cheerless				
I felt life had a purpose				
I felt too tired to do anything				
I felt pleased with the way I am				
I felt lethargic				
I found it easy to make decisions				
I felt life was enjoyable				
I felt life was meaningful				
I felt rundown				

B9 Questionnaire 3

*Cognitive Coping Subscale of the Stress Assessment Inventory* (Nowack, 1990).

## Questionnaire 3

Below is a list of common ways of coping with daily stressors, irritants, annoyances, and challenges. Please tick in the relevant column how often you have tended to use these techniques in generally coping with your life over the last three months.

	Never	Rarely	Sometimes	Often	Always
1. I think about the most positive aspects of the event or situation (e.g. what I can learn from this or what positive consequences may result).					
2. I think about happier times, events, and experiences when confronted with problems or frustrations.					
3. I imagine things improving, getting much better, and feeling confident that I can handle it.					
4. I think about and focus on what is bothering me until I feel more secure or comfortable about it in some way.					
5. I say and think positive things to myself to make me feel better about the stressful event or situation (e.g. "Everything is going to be all right").					
6. I blame, criticize, and "put myself down" for somehow creating or causing my problem.					
7. I dwell on what I should have done or not done in a particular situation.					
8. I think about and focus on the very worst thing that could happen in a particular situation.					
9. I talk about it and bring it up with others too much (i.e. "beating a dead horse").					
10. I think about it constantly during the day and night (i.e. not being able to "let go" and dwell on what is bothering me).					

B10 Questionnaire 4

*Coping Scale for Adults* (Frydenberg & Lewis, 1997)

## Questionnaire 4

Listed below are ways in which people cope with a wide variety of concerns or problems. Please indicate the things you do to deal with your concerns or worries by ticking the appropriate column. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer that best describes how you feel. For example, if you sometimes cope with your concern by “Talk to others to see what they would do if they had the problem” you would tick in the column “used sometimes”.

Please now read the statements below tick the column that applies to you.

	Don't do it	Used very little	Used sometimes	Used often	Used a great deal
1. Play sport					
2. Talk to others to see what they would do if they had the problem					
3. Put effort into my work					
4. Pray for help and guidance so that everything will be all right					
5. I get sick e.g. headache or stomach ache					
6. Work on my self image					
7. Look on the bright side of things and think of all that is good					
8. Develop a plan of action					
9. Try to be funny					
10. Find a way to let off steam, e.g. cry, scream, drink, take drugs					
11. Improve my relationship with others					
12. Go to meetings which look at the problem					

	Don't do it	Used very little	Used sometimes	Used often	Used a great deal
14. Blame myself					
13. Daydream about how things will turn out well.					
15. Don't let others know how I am feeling					
16. Consciously "block out" the problem					
17. Ask a professional person for help					
18. Worry about what will happen to me					
19. Make time for leisure activities					

20. List any other things you do to cope with your concern/s

B11 Questionnaire 5

Activities

## Questionnaire 5

Please circle the relevant rating or fill in the blanks.

1. Belonging to a religious community is important to me.

Not at all      1      2      3      4      5      6      7      A great deal

2. In retirement, I spend \_\_\_\_\_ hours participating in religious activities.

3. What is the major activity that you undertake in retirement?

For the next four questions, (questions 4, 5, 6, 7) please circle the number on a rating scale of 1-7, and fill in the blanks.

4(a) What is the most demanding activity (i.e. you have to concentrate and work hard to succeed at the activity) that you undertake in retirement?

4(b) How demanding is it?

Not at all      1      2      3      4      5      6      7      A great deal

How many hours a week do you spend on this activity?

4(c) Is it paid or unpaid? (Please circle one).

5(a) What is the most socially satisfying activity (i.e. you feel a connectedness with others in this activity) that you undertake in retirement?

How socially satisfying is it?

Not at all      1      2      3      4      5      6      7      A great deal

5(b) How many hours a week do you spend on this activity?

5(c) Is it \_\_\_\_\_ paid or unpaid? (Please circle one).

6(a) What is the most enjoyable activity (i.e. you find the activity fun) that you undertake in retirement?

How enjoyable is it?

Not at all      1      2      3      4      5      6      7      A great deal

6(b) How many hours a week do you spend on this activity?

6(c) Is it paid or unpaid? (Please circle one).

7(a) What is the most meaningful activity (i.e. it provides you with a purpose in life) that you undertake in retirement?

How meaningful is it?

Not at all      1      2      3      4      5      6      7      A great deal

7(b) How many hours a week do you spend on this activity?

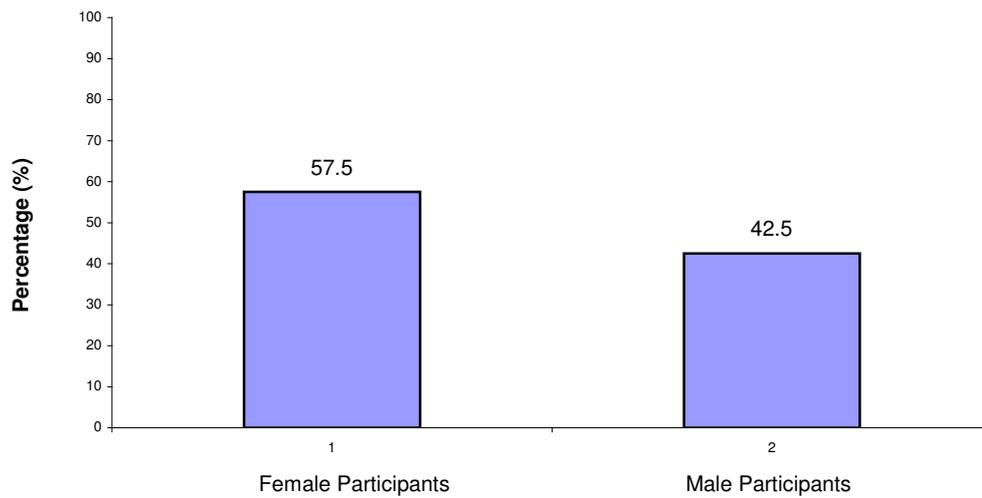
7(c) Is it paid or unpaid? (Please circle one).

B12 Demographic Profile of Participants

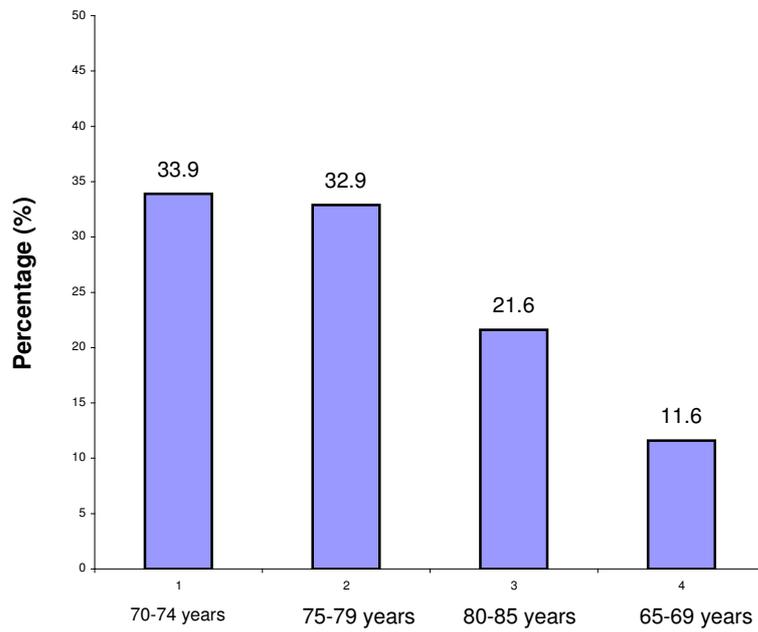
Figures 1B-15B

Study One  
Demographic Profiles

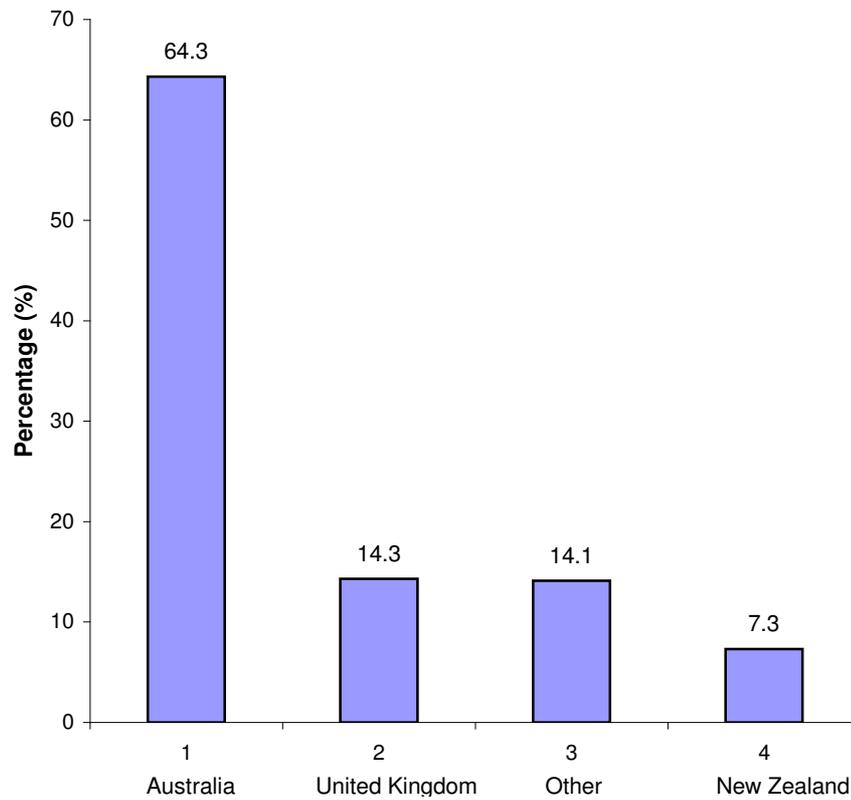
This Appendix provides the demographic profile of the 370 participants of Study One. This study and its results are described in Chapter Two.



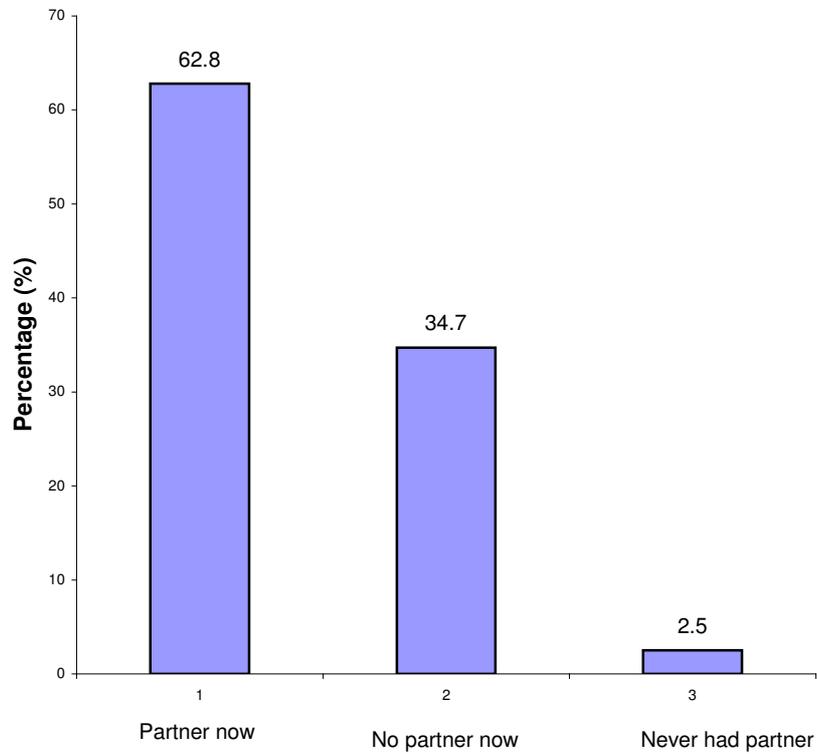
*Figure 1B* shows the percentages of males and females in the sample.



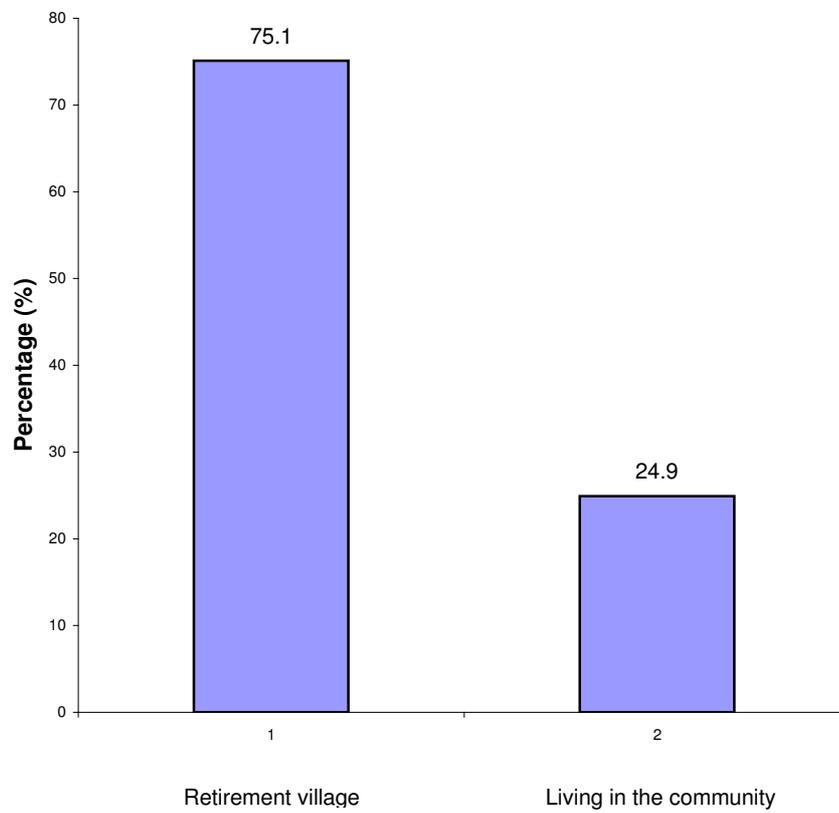
*Figure 2B* shows that the participants were divided into 4 age groups: the oldest, 80 to 85 years, the older 75 to 79 years, the younger 70 to 75 years, and the youngest, 65 to 69 years. Sixty six percent of the sample fell in the two middle age groups, while the eldest group represented 22%, and the youngest group comprised only 12% of the sample.



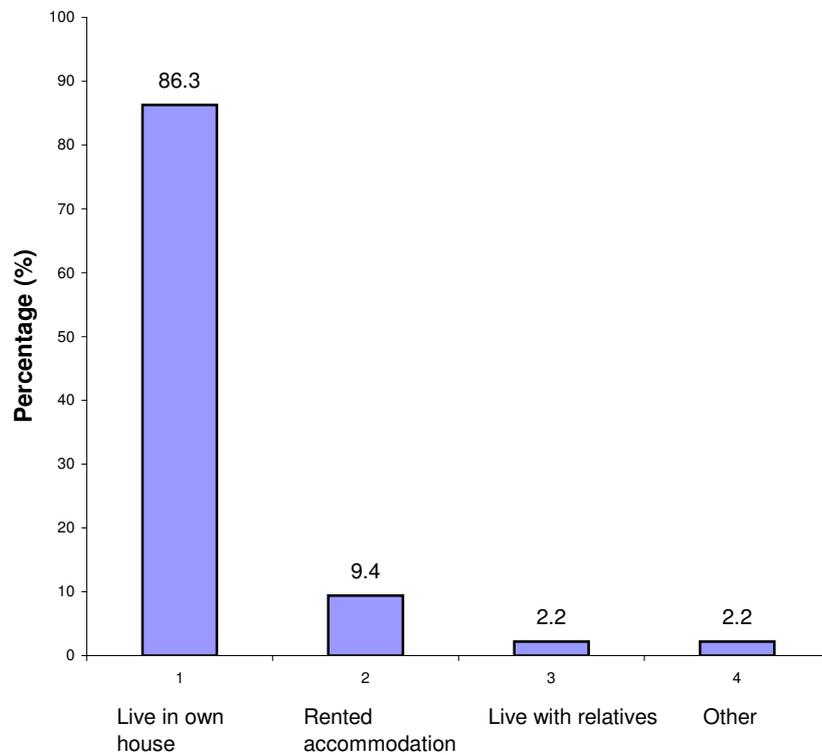
*Figure 3B* shows that 65% of participants were Australian born, with 14% born in the United Kingdom, 7% born in New Zealand and 14% born in other countries.



*Figure 4B* shows that currently the majority (62%) of participants were partnered, 35% had no partner and only 3% had never had a partner.



*Figure 5B* shows that three quarters (75%) of participants lived in the community and only one quarter (25%) lived in retirement villages. This reflects the balance of residential choice on the Gold Coast.



*Figure 6B* shows that the majority of participants (86.3%) resided in their own homes, 9.4% resided in rented accommodation, only 2.2% lived with relatives, and only 2.2% had other living arrangements.

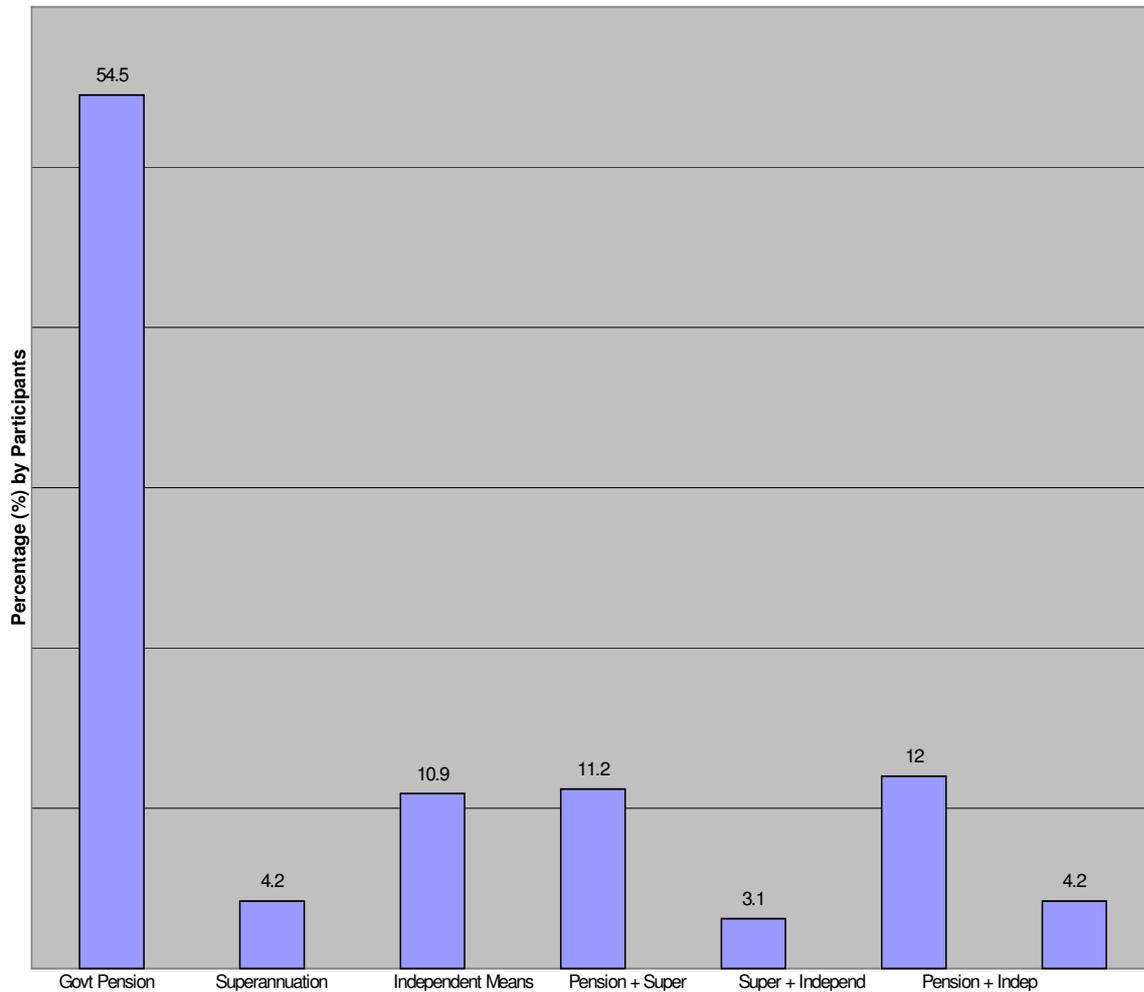
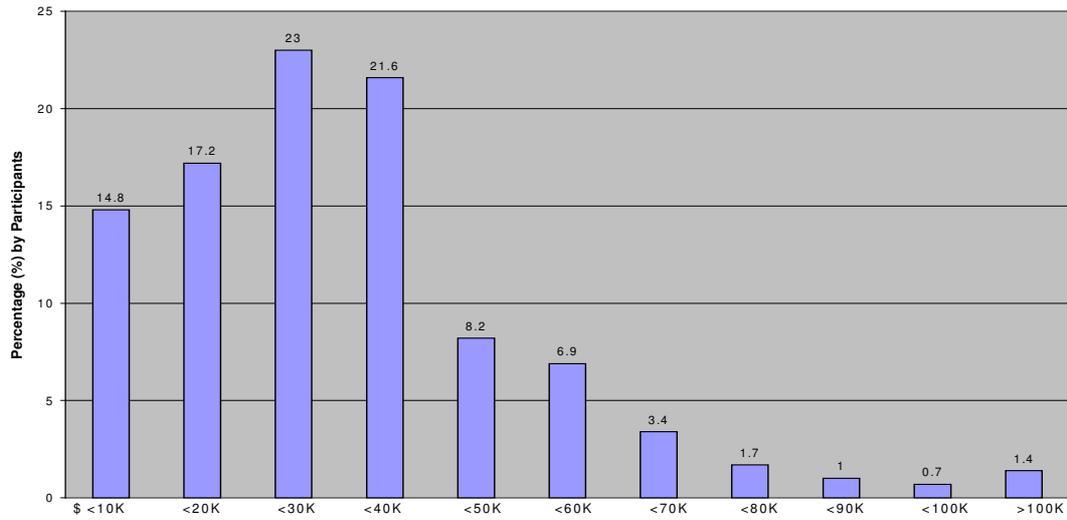


Figure 7B shows that the source of income for most participants (54.5%) was from a government pension of some kind, for 4.2% of participants was from superannuation, for 10.9% was from independent means, for 11.2% was from a combination of a government pension and superannuation, for 3.1% was from superannuation and independent means, 12% was from a government pension and independent means, and for 4.2% was from a combination of government pension, superannuation and independent means.



*Figure 8B* shows that income for participants by percentage the year before retirement was:

\$0 to \$9,999 (14.8%)	\$10,000 to \$19,999 (17.2%)
\$20,000 to \$29,999 (23.0%)	\$30,000 to \$39,999 (21.6%)
\$40,000 to \$49,999 (8.2%)	\$50,000 to \$59,999 (6.9%)
\$60,000 to \$69,999 (3.4%)	\$70,000 to \$79,999 (1.7%)
\$80,000 to \$89,999 (1.0%)	\$90,000 to \$99,999 (0.7%)
\$100,000 or more (1.4%)	

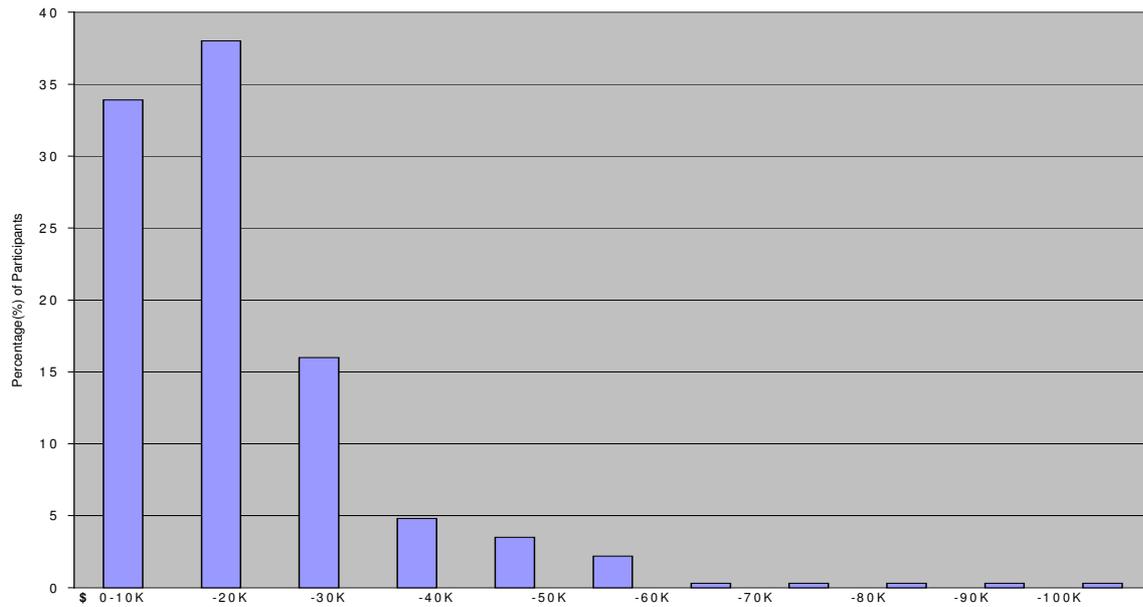


Figure 9B shows the current income of participants by percentage:

33.9% had an income of \$9,999 or less

38.0% “ \$10,000 to \$19,999

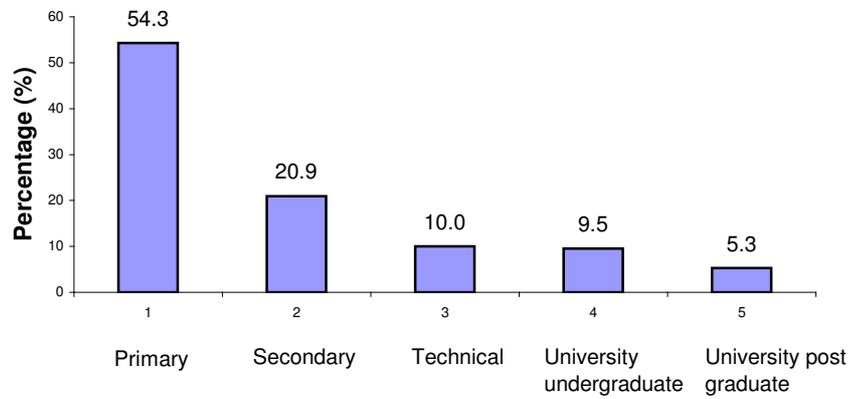
16.0% “ \$20,000 to \$29,999

4.8% “ \$30,000 to \$39,999

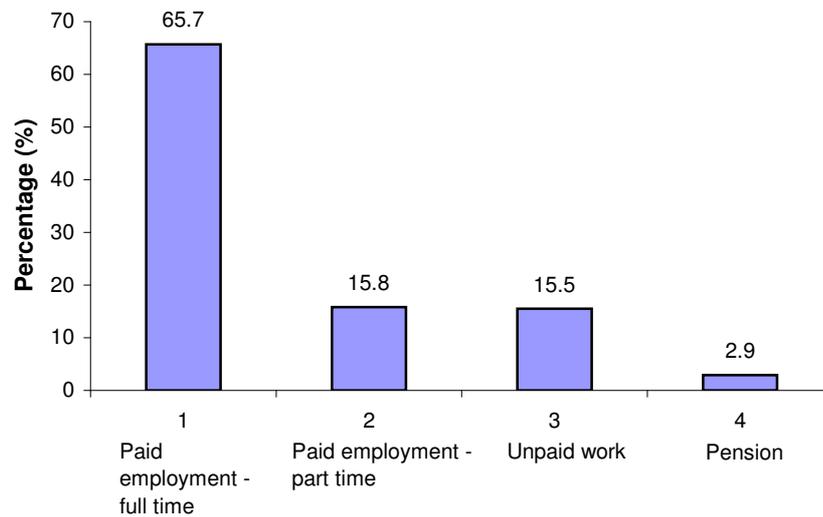
3.5% “ \$40,000 to \$49,999

2.2% “ \$50,000 to \$59,999

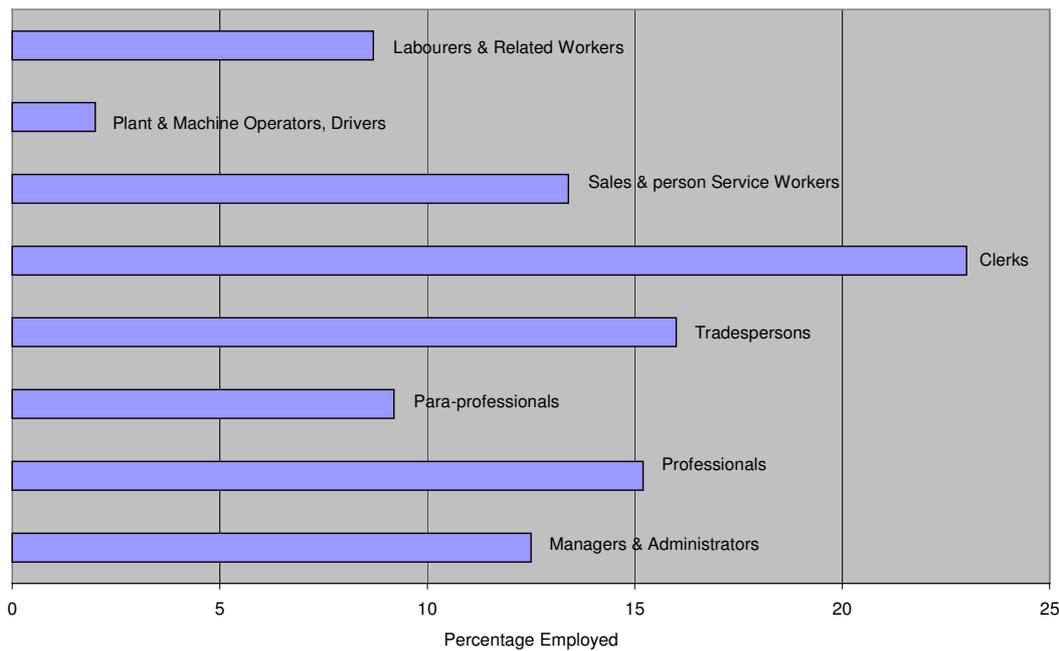
3% of participants for each income category to \$100,000 or more.



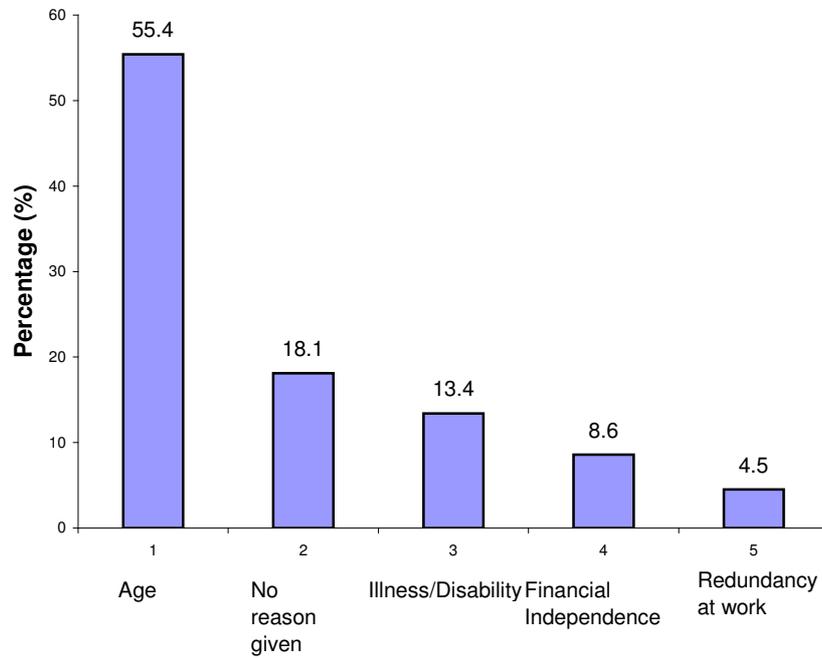
*Figure 10B* shows that the majority of participants' (54%) highest level of education was primary. Twenty one percent completed secondary level, 10% completed technical level, 10 % completed undergraduate university level, and 5% completed postgraduate level.



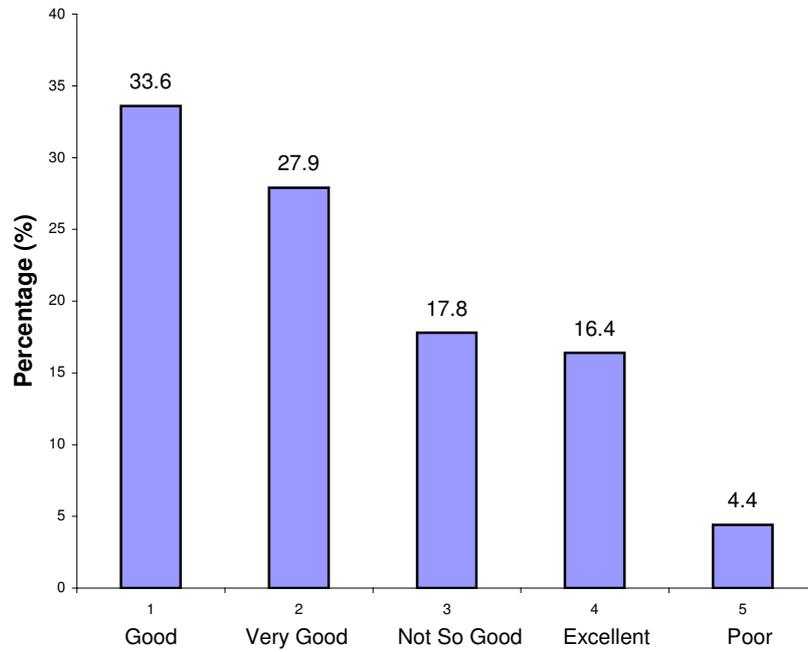
*Figure 11B* shows the participants' employment status prior to retirement. The majority (65%) were in full time paid employment, 16% were in part time paid employment, 16% were in unpaid work and 3% were on a pension.



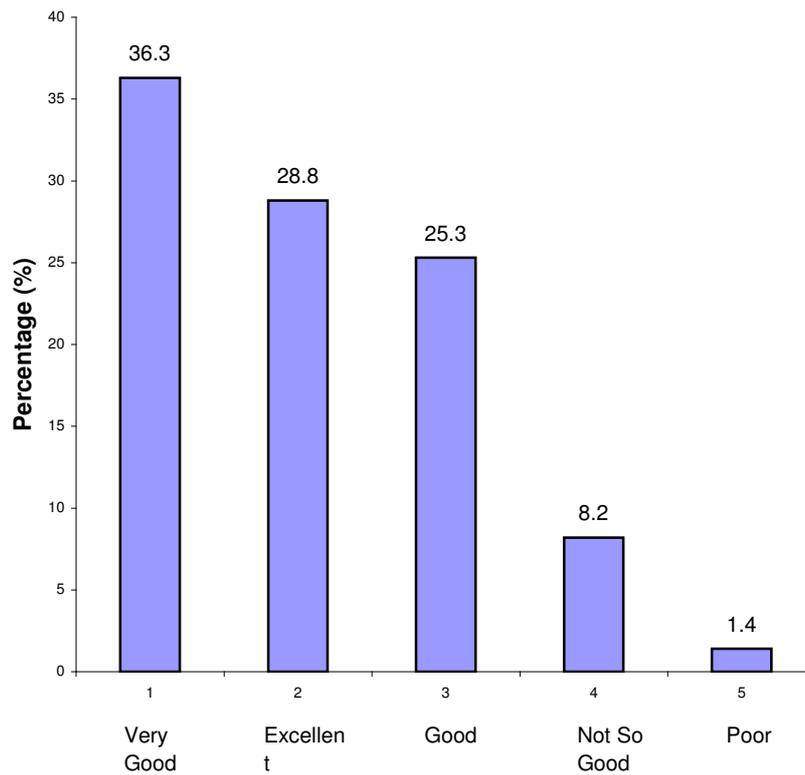
*Figure 12B* shows by percentage the employment categorisations (Australian Bureau of Statistics, 1996) for participants. The majority (23%) were classified as clerks, 16.0% as tradespersons, 15.2% as professionals, 12.5% sales and personal service workers, 13.4% as managers and administrators, 9.0% as para professionals, 8.7% as labourers and related workers and 2% as plant and machine operators or drivers.



*Figure 13B* shows the main reason for participants' retirement. The majority (55%) retired because of age, 18% gave no reason, 13% retired because of illness/disability, 9% retired because of financial independence and 5% retired because of redundancy.



*Figure 14B* shows the perceived physical health of participants. Thirty four percent perceived their health as good, 28% as very good, 18% as not so good, 16% as excellent and 4% as poor.



*Figure 15B* shows the perceived mental/emotional health of participants. Thirty seven percent perceived their mental/emotional health as very good, 29% as excellent, 25% as good, 8% as not so good and 1% as poor.

Appendix C

Study Two

C1 Flyer for Recruitment of Participants

### Attention Retirees aged 65-85 years

You are invited to participate in a Bond University research project, which aims to investigate the effectiveness of a psychoeducational program on mental-emotional health.

To participate, you would be required to:

- (a) attend a two-hour group program for a period of six weeks.
- (b) complete a one-page questionnaire at the beginning and at the end of the research period.
- (c) complete another one-page questionnaire daily during the period of the research.

Both questionnaires involve ticking boxes, and take only a few minutes to complete.

If you are interested in further information, please telephone Bond University on 55 951133 and leave your name, address, and telephone number on the “voicemail”, or if you prefer, mail your contact details to:

Mrs. Moyna Glenn Goold

Institute for Health Sciences

Bond University, Gold Coast, Qld. 4229.

Moyna Glenn Goold will telephone you to discuss the project. If you are interested further information will then be mailed to you.

Thank you for taking the time to read this flyer.

Participants' Package

C2 Explanatory Statement

## Explanatory Statement

An investigation into the effects of an educational program on well-being

(R0148)

This research project (R0148) is to be conducted by Moyna Glenn Goold under the supervision of Professor Christopher Sharpley, Director of the Institute for Health Sciences at Bond University (contact number 5595 2504).

The aim of this research is to investigate the effects of an educational program on the well-being of retirees, aged between 60 and 85 years.

Participants will be required to attend a two-hour group session weekly for a period of six weeks. They will also complete a one-page questionnaire daily over the research period, and a one-page questionnaire at the beginning and at the end of the research period. Each questionnaire will take up to five minutes to complete. The daily completed questionnaires will be collected weekly. Questionnaire data will not contain the participants' names. A research code number will be recorded on questionnaires, which will be kept confidential, and stored in locked premises at the university. Only the research team will have access to the research data. Any published work from this study will not identify any individual.

Weekly sessions will cover the general areas of stress management and depression management. Specifically, the following topics will be addressed: goal setting, problem solving, conflict resolution, anger management, communication skills, relationships, health buffers, and relaxation techniques. Each session will involve some educational input, group exercises and discussion.

The program is not intended to comprise therapy sessions. However, if personal issues are triggered for some people, counselling is available at the Institute for Health Sciences Counselling Clinic at Bond University (5595 4134), Lifeline (5539 9922), the Salvation Army (5531 3471), or from private counsellors listed in the Yellow Pages.

As participation in this research project is voluntary, participants may withdraw at any time. However, in the interests of this scientific investigation, we urge you to carefully consider your decision to participate and to volunteer, only if you believe you will complete the project.

If you require any further information you may telephone Professor Sharpley on 5595 2504. Please keep a copy of the statement for your records. If you have any complaints about this research project you may contact the Complaints Officer, Mr. Alan Finch, Registrar, Bond University, Queensland 4229, telephone 5595 1118, facsimile 5595 1025, e-mail alan\_finch@bond.edu.au.

If you are willing to participate in this project would you please read, sign and return the informed consent form on the attached page. Thank you for your time in considering participation in this research.

Professor Christopher Sharpley

Moyna Glenn Goold

### C3 Letter to Potential Participants

Dear

Thank you for your interest in the research project “ Behaving one’s way to more happiness”.

If you wish to participate, would you please:

- (a) Read and keep the explanatory statement (white sheet)
- (b) Sign and print your name on the informed consent form (yellow sheet)
- (c) Complete the questionnaire (yellow sheet)

Then return the two yellow sheets to:

Research Project  
Attention Moyna Glenn Goold  
P.O. Box 118 Bond University  
Gold Coast Qld 4229

Upon receipt of all participants’ forms, individuals will be assigned to one of two groups. Sessions will take place from 10-12 a.m. in a meeting room at the Robina Community Library Centre, in Robina Town Centre Drive.

The starting date will be advised.

Once again, thank you for your interest,  
Moyna Glenn Goold.

C4 Participant Informed Consent

## Bond University Research Project RO148

## Participant Informed Consent

I agree to take part in the above Bond University research project. I have read the Explanatory Statement and letter outlining what the study entails. I understand that by agreeing to take part means that I am willing to:

1. Attend and participate in a two hourly psychoeducational group program once a week for six weeks.
2. Complete questionnaires asking me about my perceived mental-emotional health, and the coping strategies that I use. The first questionnaire will be completed at the beginning of the program, and again at the completion of the sessions. The coping strategies questionnaire will be completed at the end of each day and retained by the participant for collection at each weekly session.
3. Keep confidential any private information that another participant may choose to share during group sessions.

I understand that any information that I provide is confidential, and that no information that could identify any individual will be disclosed in any publication about this study. I also understand that my participation is voluntary, that I can choose not to participate in any part of the project, and that I can withdraw at any time.

Name: (please print)

Date:

Signature:

Please return to the university in the enclosed pre-paid addressed envelope.

C5 Questionnaire 1: *Depression Happiness Scale* (McGreal & Joseph, 1993)

## Questionnaire

A number of statements that people have used to describe how they feel are given below. Read each one and tick the relevant column that best describes how frequently each statement was true for you in the past seven days, including today. Some statements describe positive feelings and some describe negative feelings. You may have experienced both positive and negative feelings at different times in the past week.

	Never	Rarely	Sometimes	Often
I felt sad.				
I felt I had failed as a person.				
I felt dissatisfied with my life.				
I felt mentally alert.				
I felt disappointed with myself.				
I felt cheerful.				
I felt that life wasn't worth living.				
I felt satisfied with my life.				
I felt healthy.				
I felt like crying.				
I felt I had been successful.				
I felt happy.				
I felt I couldn't make decisions.				
I felt unattractive.				
I felt optimistic about the future.				
I felt life was rewarding.				
I felt cheerless.				
I felt life had a purpose.				
I felt too tired to do anything.				
I felt pleased with the way I am.				
I felt lethargic.				
I found it easy to make decisions.				
I felt life was enjoyable.				
I felt life was meaningful.				
I felt rundown.				

C6 Daily Coping Strategies (Glenn Goold, 2001)

## DAILY COPING STRATEGIES

Week number:

Participant number:

Please tick the box under each day only for those strategies that you have used for that particular day:

Strategy number	Statement	Mon	Tue	Wed	Thur	Fri	Sat	Sun
1	I planned my day's schedule.							
2	I set a specific goal and achieved it.							
3	I dealt with the small daily hassles.							
4	Either a bigger problem did not present itself or I dealt with it if there was a bigger problem.							
5	I did what needed to be done today.							
6	I engaged in satisfying work of some kind.							
7	I was involved in an enjoyable activity.							
8	I had fun-I smiled, I laughed.							
9	I used a relaxation technique.							

10	I interacted with at least one positive person.							
11	I was in contact with a group member.							
12	I made some kind of contribution to the well being of another person.							
13	I exercised.							
14	I ate nutritiously.							
15	I avoided excess fat, sugar and salt.							
16	I drank 1-2 litres of water							
17	Either I am a non- drinker, or I drank no more than a moderate amount of alcohol.							
18	Either I am a non-smoker, or I did not smoke today.							
19	On a scale of 0-10, rate your happiness level today*							

0= not at all happy, 5=neutral, 10=as happy as possible.

C7 Psychoeducational Program Outline Sessions 1-6

## Study One

### Educational Program Outline

An outline of the psycho-educational program follows:

#### *Session 1*

In this introductory session the student researcher gave an outline of the study, and an overview of the program, which was based on self-efficacy of depression/stress management and characteristics of happy people. Group activities centred on “getting- to- know-you” exercises. Participants were assigned to buddy pairs according to the day and month of their birthdays. The role of the buddy was to support and encourage the partner to do the daily strategies by keeping in touch by telephone.

Daily strategies sheets were distributed to cover the duration of the program. Participants completed these sheets each evening by indicating which strategies they had used that day and by rating their self- perceptions of their happiness levels for that day. The number of strategies used on day 1 provided a base-line measure. At the beginning of subsequent sessions the previous week’s completed strategies sheets were collected.

#### *Session 2*

Session 2 included information dissemination, skills training and exercises on the following topics:

1. Goal setting
2. Problem solving
3. Conflict resolution
4. Anger management

*Session 3*

Session 3 included information dissemination, skills training and exercises on the following topic:

Relationships with the self, family, friends and the wider community.

*Session 4*

Session 4 included information dissemination, skills training, and exercises on the following topics:

1. Behaving in a positive way by maintaining health buffers such as nutrition, adequate sleep and rest, exercise and healthy pleasures such as humour and music
2. Involvement in and remaining challenged by activities such as interest groups and hobbies

*Session 5*

Session 5 included information dissemination, skills training and exercises on the following topics:

1. Effective communication skills such as active listening, assertiveness, body language, empathy, warmth and respect
2. Constructive communication styles
3. Individual differences in perception

*Session 6*

Session 6 included information dissemination, skills training and exercises on the following topics:

1. Relaxation techniques such as slow deep breathing, stretching, progressive muscle tensing and relaxing, visualization, and meditation.

2. Taking responsibility for self-nurturing, for example, self-hugs, self massage of face, neck and arms. This was relevant because not all participants had a spouse or partner.
4. Summing up of the program
5. Completion of the DHS posttest
6. Social activity after the session to mark the end of the course.

C8 Evaluation form

Bond University

Research Project RO148

Participant Evaluation Form

17 September 2001

Participant No.

Thank you for participating in this research project. To assist with project evaluation you are requested to complete the questionnaire below. If space is insufficient, comments may be made on the back page if you wish.

For questions 1 to 3 please circle the relevant response.

1. I found this program beneficial.

Strongly agree      Agree      Disagree      Strongly disagree

2. The completion of the Daily Strategies Sheet encouraged me to change my behaviour.

Strongly agree      Agree      Disagree      Strongly disagree

3. I would recommend this program to other seniors.

Strongly agree      Agree      Disagree      Strongly disagree

4. What did you like best about the program?

5. What did you like least about the program?

6. On a scale of 0 to 10 (where 0 = worst and 10 = best) my rating for the program is:

7. Other comments please.

## C9 Evaluation Responses

## PARTICIPANT EVALUATION RESPONSES

Participant number: \_\_\_\_\_

Please tick the appropriate column:

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I found this program beneficial.	31%	69%	0%	0%
2. Completing the daily strategies sheets encouraged me to change my behaviours.	18.5%	46%	31.5%	4%
3. I would recommend this program to other seniors.	48.5%	51.5%	0%	0%

4. Please reply to the following questions:

What did you like best about this program?

1. The course was so very well devised and presented. It was so enjoyable to participate.
2. One of the best things I have ever been involved in, and it sure moved me out of my comfort zone.
3. Participation in the program made me realize that although my memory is not what it used to be, I am holding my own pretty well, and I have to enjoy the years ahead, keep active, communicate with people and keep up with the changes around me.
4. The course was very informative and friendships made will be broadened in time with all of us benefiting from one another.
5. The lectures
6. I found the strategies for dealing with problems most helpful.
7. I am now looking forward rather than backwards.
8. I found the materials useful to use and will continue doing so.
9. You have shown us positive ways to cope with unwelcome happenings.
10. Thank you for the privilege of allowing me to join the group. I have learnt to shed the baggage and guilt I brought with me.
11. I came with an open mind and wow it is now so full. Great experience.
12. This came at such an opportune time for me. Just what I needed.
13. Magic transformed me!
14. Count me in for next time.
15. The pearls of wisdom and the pleasant atmosphere.
16. Hearing and learning about scientific research.
17. Learning ways to cope.
18. Everything.

19. The spirit of friendship magically created.
20. The sessions led me without my realizing it at first, but then I became aware of what is best for me.
21. The spirit that gradually infused the group: friendship, ease of communication within the group. It was a wonderfully unique experience that I have never had in any other group.
22. It influenced me in such a positive way, I hope for the rest of my life.
23. Thank you for teaching me how to change all my negative thoughts. I have been stuck in grief since 1997 when my husband died, but not stuck any more. Thank
24. The confident presentation.
25. The interesting and informative talks.
26. Friendly, easygoing manner of teaching and learning techniques.
27. The variation of the topics covered.
28. The presenter and the group members.
29. The program has helped me a lot in understanding my situation.
30. It made me realize that I have not been practising my values.
31. The program made me look at myself and see the real me and change what I don't like.
32. I found the program so helpful for presentations I myself will be giving.
33. It has been so enlightening in so many ways.
34. The way the presenter put the lessons across. Meeting and interacting with people I would not meet in the course of my life.
35. The course has rekindled my desire to help others rather than just concentrating on me.
36. The whole program was so beneficial to me. The video on humour was great.

37. I have learnt to tolerate difference and find out that I can learn to like people I once would have rejected.
38. The presenter's ability to connect with everyone and her easy way of communicating with all people.
39. Participating in an educational program relevant to current life situation issues.
40. Information about human behaviour and the understanding I gained about myself.
41. Hooray! I am now a non-smoker and proud of it.
42. It gave me a sense of purpose. I looked forward to every week.
43. Why didn't I think of these things before?

5. What did you like least about this program?

1. I liked everything. I can't answer this question. (repeated several times).
2. I was so nervous on the first day because I did not know what to expect but I was fine after that.
3. That I knew I needed to make changes in my life.
4. The sessions should have gone on all day.
5. I would have liked even more handouts than we received.
6. Too much structure.
7. Not enough structure.
8. That the Professor did not come to meet us.
9. Having to participate in question time.
10. Having to inform my wife of 55 years that I now had a female buddy.
11. Did not learn anything new. I've been around for a long time you know.
12. Not enough time.
13. Strategy sheet could have been better designed.
14. I don't think the buddy arrangement was a good idea.

15. Not enough about old age. A lot was applicable to any age group.
16. Nothing I can pinpoint.
17. That this program is now finished.
18. Could not see the relevance of starting each session with the national anthem.
19. The buddy system.
20. No dislikes.
21. Too rushed at times. More time needed to explore concepts.
22. I find mixing in a group without my husband difficult but I coped okay.
23. The number of times we had to attend.
24. I became aware that I drink far too much.
25. I gave up smoking as a result of what I learned in the group and this was so horrible for me to cope with.
26. Filling in forms.
27. I don't think the word sex should be mentioned in this age group. It is not fair for those who no longer have husbands.
28. Did not enjoy some of the group games.
29. I did not like some of the other participants.

6. On a scale of 0-10 (0=worst, 10=best) my rating of the program is:

The group average was 8.4.

7. Please make further comments about your experience of the program.

1. A very calm and competent instructor.
2. The presenter was so approachable.
3. The program should be available to all who want to attend.
4. This course would be so beneficial to the young and disadvantaged in our community.

5. There should be a follow-up program.
6. I liked the way the presenter did not let anyone dominate the group.
7. It was so great that such a worthwhile program cost me nothing. It was well worth paying for but it was free.
8. I'd like my family to attend such a program.
9. Please let me know if something similar is going to run.
10. So very helpful to me and so different an experience.
11. I learnt more useful information here than in my years at school.

C10 Evaluation Follow-up Form

Follow-up questionnaire

Research number:

1. In what way, if any, do you think that your questionnaire results completed on the last day of the program, were affected by the terrorist attacks in the USA, on 11 September, 2001?

2. What kind of contact, if any, have you had with any other group member since the completion of the program?

3. How was the buddy system for you?

4. In what ways, if any, have the significant other people in your life noticed a difference in your behaviour since the program?

5. On the daily strategies sheet included, please tick the strategies that you are now using on a regular basis.

6. Would you be interested in attending a meeting at the Robina Community Library Centre to receive feedback on the study results?

7. Please make further comments.

## C11 Evaluation Follow-up Responses

## Follow-up Evaluation Responses

Participant number: \_\_\_\_\_

1. In what way, if any, do you think that your questionnaire results completed on the last day of the program were affected by the impact on you of the terrorist attacks in the USA on the eleventh of September 2001?

Affected	Males	7%
	Females	41%
Not affected	Males	33%
	Females	19%

2. What kind of contact, if any, have you had with any group member since the completion of the program?

	Males	Females
More than 1 contact	14.9%	29.6%
1 contact	7%	7%
No contact	18.5%	22%

3. How was the buddy system for you?

Rating	Gender	By group percentage
Beneficial	Males	22%
	Females	33.5%
Not Relevant	Males	14.9%
	Females	29.6%

4. In what ways, if any, have the significant people in your life noticed a difference in your behaviours since the program?

1. My husband says I am more positive in my outlook in life.
2. They say I look happier.
3. I have changed my attitude for the better.
4. We haven't communicated about that.
5. My partner has noticed that I am trying very hard to make her happy.
6. My husband is pleased to see that I am no longer worrying about little things.
7. That I rave on about personal development and the need for balanced living.
8. I have become assertive and they don't like it.
9. That I am now a non-smoker.
10. That I have reduced the amount of alcohol I drink.
11. I have stopped whingeing about my health and am leading a healthier lifestyle.
12. I visited my doctor the day of the first session and the day of the fifth session. She noticed a real difference in me, which I attribute to the program.
13. I have no idea.
14. I am told there have been changes for the better in my attitude towards life.
15. None.

5. On the daily strategies sheet included please tick only the strategies that you are now using on a regular basis.

1	93%	2	92%	3	92%	4	93%	5	82%	6	93%
7	96%	8	85%	9	78%	10	96%	11	52%	12	96%
13	92%	14	100%	15	82%	16	96%	17	100%	18	90%

= Where 93% of participants reported using strategy 1 etc.

6. Are you interested in attending a two-hour meeting at the Robina Community Centre to receive feedback on study results?

All participants expressed interest in attending and 41 participants actually attended. The remaining participant did not attend because she had relocated by the time the meeting was held.

7. Are there other comments you would like to make?

1. I feel comforted by the fact there were others facing the same challenges in retirement as I am, so I see things from a different perspective now.
2. I have realized that “if it is going to be it is up to me” because I am the one in control of my life.
3. I had a huge wake-up call when others called me a “sad sack”. It took me awhile, but now I want to change.

4. I enjoyed the opportunity of both giving support and receiving support from my buddy and in the group I learnt how to give appropriate feedback.
5. Count me in for a repeat group.
6. I think on the daily strategies sheet, instead of a tick, a graduation might be better (for example, never, sometimes, often).