

# **The subjective experience of well-being: A comparison of South African individuals in early and late adulthood**

by

**Charné Nel**



*Thesis presented in partial fulfilment of the requirements for the degree of Master of Arts*

*at*

*Stellenbosch University*

Faculty of Arts and Social Science

Department of Psychology

Supervisor: Dr. Charl Nortje

December 2012

Copyright © 2012 Stellenbosch University

All rights reserved

## **Declaration**

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date:

Signed:

## Abstract

The purpose of this study was to examine the relationship between age and the following subjective well-being (SWB) variables: global life satisfaction (as measured by the Satisfaction With Life Scale [SWLS; Diener, Emmons, Larson, & Griffin, 1985], the temporal (past, present and future) dimensions of life satisfaction (as measured by the Temporal Satisfaction With Life Scale [TSWLS; Pavot, Diener, & Suh, 1998]), gratitude (as measured by the Gratitude Questionnaire-Six Item Form [GQ-6; McCullough, Emmons, & Tsang, 2002]) and health satisfaction (as measured by the Health Satisfaction Question [HSQ; Chatters, 1988; Coyle, Lesnick-Emas, & Kinney, 1994; Gwozdoz & Sousa-Poza, 2009]). The interrelationships between these variables were explored, as well as the relationship between certain sociodemographic variables and global life satisfaction in late adulthood. Two groups of male and female South African participants were used, namely, individuals aged between 24-34 years (early adulthood) and 60-75 years (late adulthood). Differences between the two groups with regard to the SWB variables were investigated by using one-way ANOVAs and t-tests, and the interrelationships between the SWB variables were calculated by means of Pearson correlations, for each group separately, as well as for the two groups combined. Differences in global life satisfaction between different sociodemographic subgroups within the late adulthood group were analysed using one-way ANOVAs and Bonferroni posthoc comparisons.

Results indicated that individuals in late adulthood reported significantly higher levels of life satisfaction than individuals in early adulthood. Similarly, individuals in late adulthood reported significantly higher levels of health satisfaction when compared to their younger counterparts. Regarding the trajectories of life satisfaction based on the subscales of the TSWLS, t-tests revealed that the early adulthood group considered their present and future (expected) life satisfaction to be significantly higher than their past life satisfaction. On the

other hand, individuals in late adulthood considered only their present to be significantly higher than their past life satisfaction. Pearson correlations indicated significant relationships between global life satisfaction, the temporal dimensions of life satisfaction, and gratitude for both the early and late adulthood groups, as well as for both groups combined. Additionally, gratitude correlated significantly with health satisfaction and future life satisfaction for the early adulthood, but not for the late adulthood group. Neither gender, length of retirement or length of widowhood were significantly related to global life satisfaction, although married individuals reported significantly higher global life satisfaction than those who were not married. The results of the study suggest that there are significant differences between South African early and late adults with regard to some SWB variables and their interrelationships. The implications of these findings were discussed.

Keywords: Global life satisfaction, temporal dimensions of life satisfaction, gratitude, health satisfaction, early adulthood, late adulthood.

## Opsomming

Die doel van hierdie studie was om die verband tussen ouderdom en die volgende subjektiewe welsyn (SWS) veranderlikes te ondersoek: globale lewensbevrediging (soos gemeet met die Satisfaction With Life Scale [SWLS; Diener, Emmons, Larson, & Griffin, 1985], die temporale (verlede, hede en toekoms) dimensies van lewensbevredigings (soos gemeet met die Temporal Satisfaction With Life Scale [TSWLS; Pavot, Diener, & Suh, 1998]), dankbaarheid (soos gemeet met die Gratitude Questionnaire-Six Item Form [GQ-6; McCullough, Emmons, & Tsang, 2002]) en gesondheidsbevrediging (soos gemeet met die Health Satisfaction Question [HSQ; Chatters, 1988; Coyle, Lesnick-Emas, & Kinney, 1994; Gwozdoz & Sousa-Poza, 2009]). Die interverbande tussen hierdie veranderlikes is ondersoek, sowel as die verband tussen sekere sosiodemografiese veranderlikes en globale lewensbevrediging in laat-volwassenheid. Twee groepe manlike en vroulike Suid-Afrikaanse deelnemers is gebruik, naamlik individue tussen die ouderdomme van 24-34 jaar (vroë volwassenheid) en 60-75 years (laat volwassenheid). Verskille tussen die twee groepe wat betref die SWS veranderlikes is ondersoek met eenkantige variansie-analises en t-toetse, en die interverbande tussen die SWS veranderlikes is bereken met behulp van Pearson-korrelasies, vir elke groep afsonderlik, sowel as vir die twee groepe gekombineer. Verskille in globale lewensbevrediging tussen sosiodemografies-verskillende subgroepe binne die laat-volwassenheidsgroep is ondersoek met behulp van eenkantige variansie-analises en Bonferroni opvolg-vergelykings.

Resultate het aangetoon dat individue in laat-volwassenheid beduidend hoër vlakke van lewensbevrediging gerapporteer het as individue in vroë volwassenheid. Individue in laat-volwassenheid het ook beduidend hoër vlakke van gesondheidsbevrediging in vergelyking met die jonger groep getoon. Wat betref die trajektorieë van lewensbevrediging gebaseer op die subskale van die TSWLS, het t-toetse aangetoon dat die vroë

volwassenheidsgroep hul huidige en toekomstige (verwagte) lewensbevrediging as beduidend hoër as hul verlede-lewensbevrediging beoordeel het. Hierteenoor het individue in laat-volwassenheid slegs hul huidige lewensbevrediging as beduidend hoër as hul verlede-lewensbevrediging beoordeel. Pearson-korrelasies het beduidende verbande aangetoon tussen globale lewensbevrediging, die temporale dimensies van lewensbevrediging, en dankbaarheid vir beide die vroeë - en laat volwassenheid-groepe, sowel as vir beide groepe gekombineer. Verder het dankbaarheid beduidend gekorreleer met gesondheidsbevrediging en toekomstige lewensbevrediging vir die vroeë volwassenheidsgroep, maar nie vir die laat-volwassenheidsgroep nie. Nie geslag, tydperk van aftrede of tydperk van weduweeskap/wewenaarskap het beduidende verbande met globale lewensbevrediging getoon nie, alhoewel getroude individue beduidend hoër globale lewensbevrediging as dié wat nie getroud was nie, gerapporteer het. Die resultate van die studie suggereer dat daar beduidende verskille tussen Suid-Afrikaanse vroeë en laat volwassenes bestaan wat betref sekere SWS veranderlikes en hul interverbande. Die implikasies van hierdie bevindings is bespreek.

Sleutelwoorde: Globale lewensbevrediging, die temporale dimensies van lewensbevredigings, dankbaarheid, gesondheidsbevrediging, vroeë volwassenheid, laat volwassenheid.

## **Acknowledgements**

For this thesis I would like to express my gratitude to the following people:

Dr. Charl Nortje – For your patience, for allowing me to learn from my own mistakes, and for giving me autonomy to make my own decisions. Thank you for your commitment to my thesis, and your continued support and guidance. I have learnt so much from you, and I am truly grateful to have had you as my supervisor.

Henry Steel – For guiding me through my statistical analysis. Thank you for taking the time to explain and run through statistical issues I experienced through this process. Your patience and effort is truly appreciated, I could not have done this without you.

The matrons/managers of retirement villages in the Hottentots Holland area – Thank you for taking the time to help me find participants for this study. You were truly helpful, and made an effort to assist me even though it was not required from you. I am truly grateful for your kindness and generosity.

All the participants that took part in this study – Thank you for taking the time to share with me, for allowing me into your homes and treating me with such kindness. I am truly humbled by your honesty, open heartedness and compassion.

Finally, I want to thank my parents. Mom, Dad and Roelf, I cannot begin to express my gratitude for all you have done for me. Your unconditional love, support and wisdom has

been guiding light for me through this process. You have ignited in me my true genius, and you never allowed me to forget it.

## Table of Contents

Declaration	ii
Abstract	iii
Opsomming	v
Acknowledgements	vii
Table of Contents	ix
List of Figures	xv
List of Tables	xvi
CHAPTER ONE: Introduction	1
1.1) Introduction	1
1.2) Background and context of the study	2
1.3) Rationale for the present study	5
1.4) Introduction to the aims of the present study	7
1.5) Outline of thesis	7
1.6) Conclusion	8
CHAPTER TWO: Literature Review	9
2.1) Introduction	9
2.2) Subjective well-being (SWB)	9
2.2.1) Defining SWB	9
2.2.2) Early SWB theories	11
2.2.3) The relationship between age and SWB	12

2.2.4)	SWB in South Africa	14
2.3)	Investigation of SWB in the present study	15
2.4)	Life satisfaction	16
2.4.1)	Global life satisfaction	16
2.4.2)	The relationship between age and life satisfaction	18
2.4.2.1)	Earlier research	18
2.4.2.2)	More recent research	20
2.4.3)	Sociodemographic variables as predictors of life satisfaction	23
2.4.3.1)	Gender	24
2.4.3.2)	Retirement and type of residence	24
2.4.3.3)	Marriage and widowhood	26
2.4.4)	Summary of theories describing the relationship between life satisfaction and age	27
2.5)	Temporal dimensions of life satisfaction	28
2.6)	Positive affect	31
2.6.1)	Gratitude as a positive affective component of SWB	31
2.6.2)	The relationship between age and gratitude	33
2.7)	Domain satisfaction	35
2.7.1)	Satisfaction with health	36
2.7.2)	The relationship between age and satisfaction with health	37
2.8)	Interrelationships between SWB variables	40
2.8.1)	Relationship between global life satisfaction and the temporal dimensions of life satisfaction	40

2.8.2)	Relationship between life satisfaction and gratitude	40
2.8.3)	Relationship between life satisfaction and satisfaction with health	43
2.8.4)	Relationship between gratitude and satisfaction with health	44
2.9)	The lifespan developmental theory (Newman & Newman, 2009)	46
2.10)	Conclusion	48
	CHAPTER THREE: Aims and Hypotheses of the Present Study	49
	CHAPTER FOUR: Methodology	54
4.1)	Introduction	54
4.2)	Research design	54
4.2.1)	Participants and sampling strategy	54
4.2.2)	Inclusion and exclusion criteria	58
4.2.3)	Measurements	59
4.2.3.1)	Biographical Questionnaire (BQ)	59
4.2.3.2)	Mini Mental State Examination Second Edition (MMSE-2)	59
4.2.3.3)	Satisfaction With Life Scale (SWLS)	60
4.2.3.4)	Temporal Satisfaction With Life Scale (TSWLS)	61
4.2.3.5)	The Gratitude Questionnaire-Six Item Form (GQ-6)	62
4.2.3.6)	The Health Satisfaction Question (HSQ)	62
4.3)	Procedure	63
4.4)	Data analysis	65
4.5)	Ethical considerations	66
4.6)	Conclusion	66

CHAPTER FIVE: Results	68
5.1) Introduction	68
5.2) Descriptive statistics	68
5.3) Comparative statistics	70
5.3.1) Global life satisfaction	70
5.3.2) Temporal life satisfaction	71
5.3.3) Gratitude	75
5.3.4) Health satisfaction	76
5.4) Relationships between variables	77
5.4.1) Early adulthood	77
5.4.2) Late adulthood	79
5.4.3) Interrelationships for both groups combined	80
5.5) Sociodemographic variables and global life satisfaction	81
5.5.1) Gender and global life satisfaction	81
5.5.2) Length of retirement and global life satisfaction	82
5.5.3) Type of residence and global life satisfaction	83
5.5.4) Being married/not married and global life satisfaction	84
5.5.5) Length of widowhood and global life satisfaction	85
5.6) Conclusion	86
CHAPTER SIX: Discussion and Conclusion	87
6.1) Introduction	87
6.2) Discussion	87

6.3) Limitations and recommendations	94
6.4) Conclusion	98
REFERENCES	99
APPENDICES	126
Appendix A: Biographical Questionnaire	126
Appendix B: Biologiese Vraelys	127
Appendix C: MMSE-2 (English)	128
Appendix D: MMSE-2 (Afrikaans)	132
Appendix E: Satisfaction With Life Scale (English)	136
Appendix G: Temporal Satisfaction With Life Scale (English)	138
Appendix H: Temporal Satisfaction With Life Scale (Afrikaans)	139
Appendix I: Gratitude Questionnaire-Six Item Form (English)	140
Appendix J: Gratitude Questionnaire-Six Item Form (Afrikaans)	141
Appendix K: Permission to use TSWLS in MA thesis	142
Appendix L: Informed Consent Form (Retirement village) – Late Adulthood (English)	143
Appendix M: Informed Consent Form (Retirement village) – Late Adulthood (Afrikaans)	147
Appendix N: Informed Consent Form (Independent living) – Late Adulthood (English)	151
Appendix O: Informed Consent Form (Independent living) – Late Adulthood (Afrikaans)	155
Appendix P: Informed Consent Form – Young Adulthood (English)	159
Appendix Q: Informed Consent Form – Young Adulthood (Afrikaans)	162
Appendix R: US REC Letter of of Ethical Clearance	165
Appendix S: Matron/Manager Consent Form (English)	166

Appendix T: Matron/Manager Consent Form (Afrikaans)

## List of Figures

Figure 1: Quality of life variables

23

## List of Tables

Table 1 - <i>Components of Subjective Well-Being</i>	11
Table 2 - <i>Demographic Characteristics of Participants in Late Adulthood</i>	56
Table 3 - <i>Demographic Characteristics of Participants in Early Adulthood</i>	58
Table 4 - <i>Means and Standard Deviations for Early Adulthood, Late Adulthood and Combined Groups regarding measures of Subjective Well-Being (SWB)</i>	69
Table 5 - <i>One-Way Analysis of Variance for Global Life Satisfaction</i>	71
Table 6 - <i>One-Way Analysis of Variance for Past, Present and Future Dimensions of Temporal Life Satisfaction for the Total Sample</i>	72
Table 7 - <i>Paired Samples T-Test's for Temporal Dimensions of Life Satisfaction in Late Adulthood</i>	73
Table 8 - <i>Paired Samples T-Test's for Temporal Dimensions of Life Satisfaction in Early Adulthood</i>	75
Table 9 - <i>One-Way Analysis of Variance for Gratitude</i>	76
Table 10 - <i>One-way Analysis of Variance for Health Satisfaction</i>	76

Table 11 - <i>Intercorrelations for Measures of Subjective Well-Being (SWB) for the Late Adulthood Group</i>	78
Table 12 - <i>Intercorrelations for Measures of Subjective Well-Being (SWB) for the Early Adulthood Group</i>	79
Table 13 - <i>Intercorrelations for Measures of Subjective Well-Being (SWB) for Both Groups Combined</i>	80
Table 14 - <i>One-Way Analysis of Variance for Gender Differences in Late Adulthood With Regard to Global Life Satisfaction</i>	82
Table 15 - <i>Bonferroni Posthoc Comparisons for Length of Retirement With Regard to Global Life Satisfaction</i>	83
Table 16 - <i>One-Way Analysis of Variance for the Differences in Type of Residence in Late Adulthood With Regard to Global Life Satisfaction</i>	84
Table 17 - <i>One-Way Analysis of Variance for the Differences between Married and Not Married Individuals in Late Adulthood With Regard to Global Life Satisfaction</i>	85
Table 18 - <i>Bonferroni Posthoc Comparisons for Length of Widowhood With Regard to Global Life Satisfaction</i>	86

# CHAPTER ONE

## Introduction

*The science of psychology has been far more successful on the negative than on the positive side. It has revealed to us much about man's shortcomings, his illness, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his full psychological height. It is as if psychology has voluntarily restricted itself to only half its rightful jurisdiction, the darker, meaner half.*

(Maslow, 1954)

### 1.1) Introduction

The happiness of the human species has always been a central theme in the humanities. Its manifestations have taken form within literary and poetic descriptions, and the possibility of it has been a question in philosophy since Plato and Seneca. Human beings' attraction to religion stems partly from the religious recipes for achieving this goal. Political ideologies became centered on creating ideal societies that would guarantee ultimate happiness. Economists and social scientists have developed quantitative measures to measure whole nation's well-being, as well as identifying various social indicators to describe quality of life.

What about psychology? Most remarkably, the field of psychology has been less focused on the conditions of well-being and more on the determinants of unhappiness (cf. Diener, 1984). Was this because psychology was more fixated on the darker side of human nature? Was it because psychology was only called upon when people were in distress and needed help? The answer to this will remain speculative; however, over the course of the past twenty years, subjective well-being has become an established topic of research. The present study aims to add to this body of research by investigating subjective well-being (SWB) and its relation to age. More specifically, this study examines SWB through a positive psychological lens, lending focus to the specific components of SWB associated with human

flourishing. These variables include global life satisfaction, the temporal (past, present and future) dimensions of life satisfaction, gratitude and health satisfaction. This chapter will give the background and context of the study, the rationale, aims and outline of this thesis.

## 1.2) Background and context of the study.

In January 2000, when Seligman and Csikszentmihalyi (2000) edited a special issue of the *American Psychologist* dedicated to the field of positive psychology, they made the claim that psychology was not producing enough “knowledge of what makes life worth living” (p. 5). They argue that from around the 1950’s onwards the field of psychology focused almost entirely on the diagnosis and treatment of psychopathology and was completely fascinated with ‘fixing’ these pathologies. The implications of this were that less attention was paid to the nature of psychological health and well-being (Sheldon & King, 2001). Although there were many benefits to this negative focus, in that much has been learnt about mental illness and therapy, the other two important visions of psychology – making lives of people better and nurturing genius – had taken a back seat (Seligman & Csikszentmihalyi, 2000). Regarding advances in the field of positive psychology, research centres are emerging internationally (e.g. <http://positivepsychologyaustralia.org>, <http://cappeu.com>, <http://centreforconfidence.co.uk>), and academic compilations of emerging empirical evidence (Keys & Haidt, 2003; Snyder & Lopez, 2009), and accessible introductions to the theory (Compton, 2005; Peterson, 2006) and its applications (Linley & Joseph, 2004) are becoming available.

The investigation of subjective well-being (SWB), explores the assessments individuals make about the quality of their lives, and is defined as a broad category of phenomena that includes peoples’ emotional responses (positive and negative affect), domain satisfactions, and judgments of life satisfaction (global, temporal and domain specific) (Diener, Suh, Lucas, & Smith, 1999). According to the model of SWB proposed by Diener et al. (1999), SWB is “a general area of scientific interest rather than a specific construct” (p.

277), that includes components such as pleasant affect (e.g., happiness), unpleasant affect (e.g., anxiety and worry), life satisfaction (e.g. global or temporally related, such as satisfaction with one's past life), and domain satisfactions (e.g., health).

Within the field of positive psychology, and more specifically the SWB model, it is necessary to make choices of which constructs to focus on in the present study. A series of preliminary questions, as well as certain research findings, guided this process. Questions included: Does life satisfaction decline with aging? Are older people as satisfied with their lives as younger adults? What factors correlate with life satisfaction, and therefore may potentially contribute to it? The first, very important conclusion based on research findings is that life satisfaction apparently does not decline with age (Diener & Suh, 1998; Kunzmann, Little, & Smith, 2000; Lucas & Gohm, 2000; Mroczek & Kolarz, 1998; Pinquart, 2001). The study of life satisfaction and its relation to age has been substantially investigated in the past (see Hertzog & Rogers, 1981; Horley & Lavery, 1995; Larson, 1978; Stock, Okun, Haring, & Witter, 1983), most of which converged to show that life satisfaction remains fairly constant throughout the human life span. More recent empirical evidence (Kunzmann et al., 2000; Mroczek & Spiro, 2005; Schilling, 2006; Staudinger, 2000) have also found virtually no age effects in life satisfaction, that is, life satisfaction remains reasonably stable over time. It is important to note that one's sociodemographic characteristics, such as income and gender, tend to be only weakly or even unrelated to average levels of life satisfaction (Avia & Vazquez, 1998; Diener, 1984, 2000; Diener & Suh, 1998; Inglehart, 1990; Maluka, 2004; Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Pinquart & Sorensen, 2000; Ryff & Singer, 1998). Additionally, other objective life conditions, such as health and social support have been found to play a minimal or no role in a person's overall well-being (Hertzog & Rogers, 1981; Horley & Lavery, 1995; Larson, 1978; Stock et al., 1983). Medley (1980) found that life satisfaction remained fairly constant over four developmental age groups in adulthood (early adulthood [22-34], middle age [35-44], late middle age [45-64] and late adulthood [65

and older]), but this was found three decades ago, and more recent empirical research needs to be conducted using new developmental models, as well as South African participants.

A second important issue based on research findings, is the fact that although general (global) life satisfaction does not decline with age, certain variables and components of SWB were identified that apparently do change as people grow older. When individuals are asked to assess their past, present and future dimensions of life satisfaction, differences between individuals in early and late adulthood were found (Aldwin, Sutton, & Lachman, 1996; Fleeson & Heckhausen, 1997; Lachman, Roche, Rosnick, & Ryff, 2008; Newby-Clark & Ross, 2003). This essentially means that challenges faced within different developmental stages influences the way they gauge their life satisfaction throughout their life (Baltes, Lindenberger, & Staudinger, 2006; Freund, 2006; Lachman, 2004).

Emmons and McCullough (2003) found gratitude to be a significant component of SWB, and found significant evidence that the grateful disposition is related to the more affective component of SWB. Empirical evidence suggests that older adults tend to show higher levels of gratitude than younger adults (Kashdan, Mishra, Breen, & Froh, 2009). Extensive research has been conducted on the relationship between gratitude and life satisfaction (e.g., Emmons & McCullough, 2003; McCullough, Tsang, & Emmons, 2004; McCullough, Emmons, & Tsang, 2002; Park, Peterson, & Seligman, 2004; Wood, Joseph, & Linley, 2007). Through this research it has been found that gratitude has one of the strongest relationships with life satisfaction, more so than almost any other trait (e.g. Park, et al., 2004).

Satisfaction with health is a domain specific component of SWB which has been found to play an integral role in one's overall SWB (Baltes & Smith, 2003; Coyle, Lesnick-Emas, & Kinney, 1994). Intuitively, one would believe individuals in late adulthood to experience lower levels of health satisfaction as a result of normal age-related changes that occur within this developmental stage. International research suggests that individuals in late adulthood do indeed show lower levels of health satisfaction than their younger counterparts,

which makes this a domain specific component of SWB that does seem to decline as a person ages (Campbell, Converse, & Rogers 1976; Coyle, et al., 1994; Gwozdoz & Sousa-Poza, 2009). The question is whether or not this holds true when investigating health satisfaction in a South African sample of older adults.

### **1.3) Rationale for the present study**

Over the past decade, South Africa has made a successful transition to democracy. People are beginning to reach their basic biological needs, such as the right to freedom, food, clothing and shelter and are thus becoming increasingly concerned with higher level needs, such as personal development and SWB (Diener & Biswas-Diener, 2000). SWB is imperative in a democratic world, where there is a greater need for people to live fulfilling lives *as evaluated by themselves* and not as judged by policy makers, autocrats or experts (Diener & Biswas-Diener, 2000).

Gathering South African data will enable researchers to judge whether international theories on SWB are applicable in a South African context. If the theories are found to be lacking, then more appropriate theoretical models that are applicable to South Africans may be developed from the relevant data. Furthermore, the investigation of SWB in a South African sample will inform policy makers on the role and importance of SWB judgments in this country, thus identifying areas of intervention in the South African community. For example, identifying how evaluations of SWB components differ between age groups will provide information on how potential areas of intervention should theoretically involve different strategies for different developmental stages. Furthermore, by investigating interrelationships between SWB variables, differences between South African younger and older adults might be uncovered, which will illustrate how the different SWB components interact at different developmental stages. Issues such as the structure of adult day-care programs, as well as opportunities for older adults to maintain engagement in their

communities are examples of interventions that may flow from policy makers who were informed of SWB findings in South Africa (Pavot & Diener, 2004).

Psychological research on individuals in late adulthood is by no means a new venture, with the first studies being conducted around 50 years ago (Louw & Louw, 2009). In society today, individuals are living longer and there is a gradual aging of the world's population (Pesler, 2005). Developing countries will host approximately 75% of the world's elderly population in the near future (Pesler, 2005); therefore research and professional services will increasingly and urgently be needed for individuals in this developmental stage. Psychological research on subjective experiences such as well-being and quality of life in older individuals is pertinent. SWB judgments are thought to reflect the conditions in one's life, and many of these conditions deteriorate in old age (Diener, Scollon, & Lucas, 2003) and retirement (Pinquart & Schindler, 2007), for example, physical well-being or loss of a spouse. The identification of components of subjective well-being that change with increasing age will provide important impetus in the design of preventative and treatment programs for individuals in late adulthood, as well as early adulthood.

Psychologists' knowledge of SWB is, at best, rudimentary; therefore more research is needed to create a strong scientific foundation so that clear recommendations can be made to individuals and societies on how to increase aspects of SWB, like satisfaction with life (Diener, 2000). The present study aims to add to the body of SWB literature by investigating how SWB changes with age, and how different ages experience different relationships between the SWB components. Additionally, contemporary research on gratitude is still in its infancy (Wood, Joseph & Maltby, 2009), because despite widespread exhortations, the role that gratitude plays in health, well-being and overall functioning remains speculative and without thorough empirical support (Emmons & McCullough, 2003).

It is important that psychologists are reminded that pathology is but one area of study in the field of psychology, that learning about human strength and virtue is as important to

understand as weakness and damage. To treat a patient is not merely fixing what is flawed and damaged, but also nurturing, encouraging and promoting what is best. Psychologists need now to call for an alternative focus of research, namely on human strengths and virtues. It is becoming clear that evaluating normal, fully functioning individuals within a pure negative frame of reference is short sighted. In fact, the majority of the human race rate themselves as happy and satisfied with their lives (Meyers, 2000). Unfortunately, the knowledge that the field of psychology has about psychological well-being and how to encourage it, is severely limited. This is not only because this question has not been given the resources it deserves, but more importantly, because researchers in this field have worn blinkers that have prevented them from even recognizing the value of this question. Positive psychology aims to catalyze a change in psychology, to move it away from a preoccupation with only repairing the worst things in life, to also laying focus on building positive qualities (Seligman & Csikszentmihalyi, 2000). This study aims to add to the positive psychology literature, and to reiterate the importance and value of human strength and virtue.

#### **1.4) Introduction to the aims of the present study**

The primary aims of the present study were to determine whether early and late adults differ significantly with regard to global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction, as well whether these age groups differ with regard to the interrelationships between these variables. The secondary aims were to investigate whether certain sociodemographic variables (i.e. gender, length of retirement, type of residence, being married/not married and length of widowhood) are significantly related to global life satisfaction in late adulthood. The study particularly focused on the positive psychological components of SWB and their relation to age. The aims of the present study will be formulated in more detail in Chapter 3.

#### **1.5) Outline of thesis**

Following the brief introduction on SWB research above, Chapter 2 expands on the

SWB literature. Specific focus is given to the definition of SWB, as well as how individuals in early and late adulthood compare with regard to their experiences of SWB variables (global life satisfaction, temporal dimensions of life satisfaction, gratitude and health satisfaction), both internationally and where available, within South Africa.

Chapter 3 gives a detailed formulation of the primary and secondary aims and hypotheses of the present study.

Chapter 4 focuses on the methodologies and procedures adopted in this study; giving brief outlines on the questionnaires utilized, ethical considerations, as well as the quantitative measurement techniques that were implemented.

Chapter 5 gives a detailed overview of the results of the study through a presentation of the quantitative data (one-way ANOVAs, t-tests, Pearson correlations and Bonferroni posthoc comparisons).

In the final chapter – Chapter 6 – the results and limitations of the study are discussed, and recommendations for future research are made.

## **1.6) Conclusion**

To summarize, the investigation of positive psychological aspects of SWB is pertinent, especially regarding individuals in late adulthood, due to the fact that they experience deterioration in many of the conditions in their lives that could potentially contribute to their well-being. It is important to investigate SWB in South Africa so that clear recommendations can be made on how to increase aspects of SWB. The proposed study aims to investigate whether there are significant differences between individuals in early and late adulthood regarding the following subjective well-being variables: global life satisfaction, temporal dimensions (past, present and future) of life satisfaction, gratitude, and satisfaction with health.

## **CHAPTER TWO**

### **Literature Review**

#### **2.1) Introduction**

The concept of subjective well-being (SWB) is an area of behavioural sciences that studies the evaluations individuals make about their lives (Diener et al., 2003). The last two decades has witnessed considerable growth within the field of SWB, however there is a fundamental question that remains poorly understood: What is the relationship between SWB and aging?

As outlined in the previous chapter, the present study aims to investigate whether there are significant differences in the experience of SWB variables across different age groups; more specifically, if there are significant differences between individuals in early and late adulthood. The purpose of the following chapter is to review literature (both international and South African) on SWB variables such as global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction with regard to aging.

#### **2.2) Subjective well-being (SWB)**

##### **2.2.1) Defining SWB**

The study of SWB is a general area of scientific interest, and a variety of evidence suggests that it is a multidimensional construct composed of both cognitive and affective components. The cognitive components are the conscious evaluations a person makes about the quality of their lives as a whole, and these satisfactions are usually referred to as life satisfaction, or domain satisfaction(s) (Diener, 2000). The affective components encompass both moods and emotions, and represent the ongoing or “online” (Diener, 2000, p. 34) reactions people have about situations or events. Thus, a person is said to have high SWB if they experience life satisfaction and frequent joy, and only infrequently experience anger or sadness. On the contrary, those who experience low life satisfaction, and frequently

experience negative emotions such as anxiety, depression or anger is said to have low SWB. The cognitive and affective components of SWB are highly interrelated, and researchers have only recently begun to understand the significance of the relations between different types of SWB.

This view of well-being, which places emphasis on life satisfaction and affective states, has been labelled the “hedonic view” (Ryan & Deci, 2001, p. 143). The alternative is the “eudaimonic” perspective, which rather places emphasis on autonomy, human growth and actualization (Ryan & Deci, 2001, p. 145). This thesis investigates SWB through a hedonic lens, placing focus on the components of life satisfaction and positive affect.

The components of SWB have a hierarchical structure with various levels of specificity, with the highest level of this hierarchy being the concept of SWB itself. At this level, SWB is a reflection of the overall evaluations people make about their lives, and researchers who study SWB need to measure the various components that are lower in the hierarchy in order to get a comprehensive understanding of an individual’s well-being (Diener et al., 2003). According to the model proposed by Diener et al. (1999) (see Table 1), the next highest level of the hierarchy involves both the cognitive and affective components; each providing unique information about the subjective quality of one’s life, such as life satisfaction (e.g. global or temporally related, such as satisfaction with one’s past life), pleasant affect (e.g., happiness), unpleasant affect (e.g., anxiety and worry), and domain satisfactions (e.g., health). Finally, within each of these four components, further distinctions can be made. The following framework (Table 1) is quoted as it appeared in Diener et al. (1999, p. 277).

Table 1

*Components of Subjective Well-being*

Pleasant affect	Unpleasant affect	Life satisfaction	Domain satisfactions
Joy	Guilt and shame	Desire to change life	Work
Elation	Sadness	Satisfaction with current life	Family
Contentment	Anxiety and worry	Satisfaction with past	Leisure
Pride	Anger	Satisfaction with future	Health
Affection	Stress	Significant others' views of one's life	Finances
Happiness	Depression		Self
Ecstasy	Envy		One's group

The study of SWB revolves around the internal experiences of the respondent, thus researchers do not look at an external frame of reference when assessing SWB. Although there are many criteria that are dictated from the outside by researchers and practitioners (like autonomy, maturity or realism), an individual's own experience is the cornerstone to their subjective evaluations, and a person's beliefs about his/her own well-being is of paramount importance (Diener, Suh, & Oishi, 1997). If a person believes that their life is going well, then their life is going well within this SWB framework.

### **2.2.2) Early SWB theories**

The experience of well-being varies from individual to individual, and for years researchers have attempted to uncover these differences. In many of the early, classic studies on SWB, researchers lent focus on sociodemographic and social structure variables, such as age, income, gender, marital status, in order to explain the individual differences in well-being (Andrews & Withey, 1976; Bradburn, 1969; Campbell et al., 1976; Gurin, Veroff, & Feld, 1960; Veroff, Douvan, & Kulka, 1981). This movement became known as the 'social

indicators movement' (Ryff, Keyes, & Hughes, 1998), in which it was assumed that some sociodemographically defined groups (e.g. younger people, married people, people with high incomes) had an overall higher well-being than others due to the fact that they have access to psychological, material and physical resources.

More recent empirical evidence has cast doubt on the validity and value of this earlier point of view. Researchers began to discover that the contribution of sociodemographic variables (such as gender and income) to overall levels of well-being is modest, explaining only a marginal portion of variance in individual well-being ratings (Avia & Vazquez, 1998; Brim, 1992; Diener, 1984, 1994, 2000; Diener & Suh, 1998; Inglehart, 1990; Maluka, 2004; Marmot, et al., 1997; Myers & Diener, 1995; Piquart & Sorensen, 2000; Ryff, 1989; Ryff & Singer, 1998). This somewhat unexpected finding has been conceptualized as "the paradox of well-being" (Mroczek & Kolarz, 1998, p. 1333). Its most prominent characteristic is the presence of relatively high levels of SWB even in the face of objective difficulties or other sociodemographic or risk factors that should intuitively predict lower levels of SWB. Nevertheless, the demographic profile of an individual is likely to have some degree of influence on his or her SWB; therefore the demographic data of that individual may potentially make a contribution to the overall understanding of his or her subjective experience.

### **2.2.3) The relationship between age and SWB**

Physical, environmental and emotional changes generally accompany later life, some that occur suddenly, such as death of a spouse, or more gradually, like deteriorating health. However, many of the changes that occur in this developmental stage are viewed as positive, such as retirement and freedom of the responsibility of looking after a family (Jones, Rapport, Hanks, Lichtenberg, & Telmet, 2003). Do these changes in the conditions of a person's life have a significant impact on the experience of SWB in older individuals? Researchers have been asking this question for decades. Already in 1967, Wilson found that youth was a stable

predictor of SWB, with younger adults reporting a higher level of SWB than their older counterparts. However, more recent empirical evidence challenges this finding. Most research has found SWB to remain remarkably stable over time (Diener & Suh, 1998; Kunzmann et al., 2000; Lawton, 2001; Lucas & Gohm, 2000; Mroczek & Kolarz, 1998; Pinquart, 2001). Thus, as people move through life their goals, environmental factors and needs change, but their SWB remain steady.

When investigating the age effects on SWB, two opposite lines of thought have emerged as prominent. Wilson (1967) put forward the notion that as the objective life conditions (such as income, health and social support) typically decline with age, so does an individual's SWB. The second perspective lies in Carstensen's (1995) socioemotional selectivity theory, which lends focus to emotional regulation. Carstensen (1995) upheld the idea that the role of affect becomes more prominent as a person gets older, and that individuals' improve in their emotional regulation with age. In other words, a person has the propensity to change their goals as they age as a result of the limited time they have left before death. As an individual becomes more aware of their own mortality, they have the tendency to put greater emphasis on experiencing pleasant emotional states. Thus SWB should theoretically increase as a person ages (Carstensen & Charles, 1998), even in the face of declining life circumstances.

Researchers have not found any conclusive evidence for an overall decline in SWB as individuals move through adulthood, although there is some evidence of a decline in positive affective component of SWB (see Diener & Suh, 1998; Lucas & Gohm, 2000). Life satisfaction on the other hand, has been found to neither increase nor decrease as a person ages (Cantril, 1966; Diener & Suh, 1998; Hamarat, Thompson, Steele, Matheny, & Simons 2002; Ingelhart, 1990).

This remarkable stability in SWB over the lifespan does not mean that the measures of well-being are insensitive to changing life circumstances. Lucas, Clark, Georgellis, and

Diener (2003) and Clark, Georgellis, Lucas and Diener (2002) found that the life satisfaction increased in individuals who had just been married, and decreased in those who had just lost a spouse, which suggests that life satisfaction is influenced by life events. Interestingly, the life satisfaction scores in the period before the event through to the period after the event were very stable, which suggests that relative satisfaction remains stable even in the face of changing and challenging life circumstances.

#### **2.2.4) SWB in South Africa**

Previous empirical research has found that individuals in poor countries experience average or slightly lower levels of SWB than those in more developed nations (Diener, Diener, & Diener, 1995; Diener et al., 1997). Biswas-Diener and Diener (2001) found that people from poor nations do report lower levels of global life satisfaction, yet their domain satisfactions were found to be very high, especially in the area of social relationships. However, Maluka (2004) found that in a sample of disadvantaged, community based South Africans, overall SWB was very high.

South African SWB literature has yielded mixed results. After the elections that appointed Nelson Mandela as the nation's first democratically elected president in 1994, most South Africans rated themselves as having an overall high SWB. However, the euphoria experienced after the elections were short lived, and the divide between black and white SWB ratings re-emerged and continued (Moller, 1998, 2001). SWB in South Africa has been found to be stable over time, but variations in SWB between race groups continues to be found (Higgs, 2006). One can theorize that the reason for this divide could be due to differences in culture, with the western culture being more individualistic in nature, and African culture being more collectivist. Suh, Diener, Oishi, and Triandis (1998) found that individuals within an individualistic culture relied more on their affective well-being than that of individuals from collectivist cultures when assessing their SWB, whereas collectivists relied more on whether their significant others thought their life was heading in a positive direction.

In South African literature, it has been found that race is associated with variance in SWB (Moller & Saris, 2001; Neff, 2007). Neff (2007) found that there are cultural differences (between ethnic groups) regarding SWB. Variables such as race, SES, as well as other environmental factors that could be related to life satisfaction are not being investigated in this study, as the purpose of the study is not to identify all the potentially significant variables, but rather to investigate the psychological factors pertaining to SWB, especially the positive psychological components of SWB.

### **2.3) Investigation of SWB in the present study**

The Diener et al. (1999) SWB model has significant organizational value regarding conceptual components within the subjective well-being field, yet it is still a very broad field, and for the purpose of the proposed study further delineation of the field is needed. The first consideration in the delineation process is the distinction between the fields of positive psychology versus psychopathology (Seligman & Csikzentmihalyi, 2000). Unpleasant affect, as conceptualized by the Diener et al. (1999) model, could be regarded as belonging to the psychopathology field, whereas pleasant affect, life satisfaction and domain satisfactions belong to the field of positive psychology. According to Seligman and Csikzentmihalyi (2000), “[T]he field of positive psychology at the subjective level is about valued subjective experiences” (p. 5). By focusing only on the positive psychological components of SWB, the proposed research will focus on broadening knowledge on factors that do not only influence, but promote human flourishing.

A guiding factor (in delineating factors within the field of positive psychology, SWB, and developmental psychology) is related to the methodology followed by previous research. In the past, researchers have used large samples, ranging from the beginning of early adulthood through to late adulthood (Ehlrich & Isaacowitz, 2002; Rocke & Lachman, 2008; Westaway & Maluka, 2005; also see older research: Hertzog & Rogers, 1981; Horley & Lavery, 1995; Larson, 1978; Stock et al., 1983). All these studies found that global life

satisfaction did not decrease with age, but this does not necessarily mean that differences in life satisfaction of two developmental groups do not differ significantly. It is, for example, theoretically possible that early and late adulthood individuals do indeed differ significantly regarding the subjective experience of life satisfaction (Baltes et al., 2006; Freund, 2006; Lachman, 2004), but when individuals from middle adulthood are added to the research sample, it is possible that these differences become obscured or diminished. In other words, large variations regarding life satisfaction in middle adulthood (Blanchflower & Oswald, 2007), may lead to insignificant findings when the relationship between age and life satisfaction is investigated for one large group over the whole adult life span. The question whether South Africans in early and late adulthood differ significantly regarding life satisfaction, differs from the question whether there is ‘a significant relationship between aging and life satisfaction’.

## **2.4) Life satisfaction**

### **2.4.1) Global life satisfaction**

Life satisfaction is conceptualised as one of the cognitive components of SWB, and refers to the global judgements people make about the quality of their lives (Diener et al., 2003). This effectively means that people can examine the condition in their lives, weigh the importance of these conditions, and evaluate their lives on a scale ranging from satisfied to dissatisfied. One of the major advantages of life satisfaction as a measure of SWB is that it encapsulates a global sense of well-being from the perspective of the individual, thus it is an ‘overall’ judgment and a subjective state of mind.

The concept life satisfaction has been used interchangeably with the concepts happiness, well-being and quality of life in previous literature (Csikszentmihalyi, 1999; Cummins, Lau, & Stokes, 2004; Jeffres & Dobos, 1995; Michalos, 2004; Veenhoven, 1991), which has resulted in confusion regarding the distinctness of these concepts. Csikszentmihalyi (1999) regard subjective well-being and happiness as equivalent constructs, whereas

Veenhoven (1991) and Michalos (2004) equate happiness with life satisfaction. Jeffres and Dobos (1995) agree with Cummins et al. (2004) with regard to quality of life as synonymous with subjective well-being. There is evidence that suggests that happiness and life satisfaction are related concepts, due to the fact that they share a maximum of 60 percent common variance, but that they are not identical (Adams, 1997; Diener & Diener, 1995; Kozma, Stone, Stones, Hannah, & McNeil, 1990). Research on these variables has reached a general consensus that happiness and life satisfaction are in fact global concepts that are underlying subjective well-being and perceived quality of life domains (Bowling & Gabriel, 2004; Bowling & Windsor, 2001; Campbell, 1981; Csikszentmihalyi, 1999; Jeffres & Dobos, 1995; Michalos, 2004; Pavot & Diener, 1993; Veenhoven, 1991; Veenhoven 1996; Westaway, 2006).

After many years of research on the subject of life satisfaction, there is now a considerable understanding of how life satisfaction judgments are made. It appears that an individual cannot consider all areas of their life that contribute to their satisfaction and then weight them appropriately. An example of this comes from research conducted by Robinson and Clore (2002), who found this task to be difficult due to the fact that individuals use a variety of shortcuts when coming up with their satisfaction judgments. This means that individuals are more likely to use the information that is more salient to them at the time. Transient factors like the current weather conditions and how a person feels at that particular moment can influence their life satisfaction ratings (Schwarz & Strack, 1999), but in spite of this there is remarkable temporal stability in individuals' life satisfaction judgments (Ehrhardt, Saris, & Veenhoven, 2000; Magnus & Diener, 1991).

In general, life satisfaction, happiness, quality of life and well-being are relatively stable (Adams, 1997; Bowling & Gabriel, 2004; Bowling & Windsor, 2001; Campbell, 1981; Csikszentmihalyi, 1999; Cummins, 1995; Cummins et al., 2004; Cummins et al., 2004; Diener & Diener, 1995; Jeffres & Dobos, 1995; Kozma et al., 1990; Michalos, 2004; Pavot &

Diener, 1993; Veenhoven, 1991; Veenhoven 1996; Westaway, 2006) due to the fact that people adapt to both positive and negative life events. This was demonstrated in the classic study conducted by Brickman, Coates, and Janoff-Bullman (1978) where happiness was measured in lottery winners, a control group, and accident victims. The results indicated that past, present and future ratings of happiness were no different between lottery winners and controls. The accident victims rated their past happiness as higher and their present happiness as lower than the controls, although there was no difference in the future happiness between these two groups. This study demonstrates the impressive ability that human beings have to adapt to their conditions, that they employ coping mechanisms and assimilate readjustment of their goals in order to maintain a sense of global satisfaction with life (e.g. Brickman et al., 1978; Campbell et al., 1976; Hepworth, 1980; Rapkin & Fischer, 1992).

## **2.4.2) The relationship between age and life satisfaction**

### ***2.4.2.1) Earlier research***

Research on life satisfaction and its relationship to age has been carried out for decades, much of which has yielded mixed results. Earlier research initially concluded that life satisfaction decreased as an individual aged (e.g., Bradburn, 1969; Bradburn & Caplovitz, 1965; Cantril, 1966; Larson, 1978; Shin & Johnson, 1978), therefore it was believed that as a person gets older, levels of happiness decreased. This led to the popular misunderstanding that aging leads to unhappiness, due to the fact that people in this developmental stage tend to experience significant emotional, physical, and environmental changes. For decades, Western culture has been criticized for its celebration of youth and its devaluation of old age (Fry, 1996), therefore identifying aging as a negative experience.

Earlier theories of SWB conceptualized happiness as resulting directly from the objective circumstances of individuals' lives. Campbell et al. (1976) found that in order to derive a life satisfaction judgment, people review the objective conditions in their lives. According to this model, each condition is weighted based on its relative importance before

summing across those evaluations to create an overall judgement. If life satisfaction judgments are accounted for by one's objective life conditions, then demographic variables should play an integral role in between-person variation in SWB. Additionally, as a person ages, they experience changes in areas such as physical health, financial status and social relationships, and because aging is associated with deteriorating health, decreased income and fewer social connections (Baltes & Mayer, 1999), these earlier SWB models suggest that life satisfaction should decline with lower levels of SWB in old age.

A large body of literature came about in reaction to this model, as researchers were investigating how much objective life conditions such as socioeconomic status, income, social support and relationships, health, and physical environment, contribute to life satisfaction in old age (Adams, 1971; Antonucci & Akiyama, 1991; Chatfield, 1977; Diener, 1984; Edwards & Klemmack, 1973; George, 1990; Markides & Martin, 1979). In fact, the goal of most research on life satisfaction during this time was to demonstrate that objective life conditions explained almost all of the variance in subjective assessments of well-being. However, these conditions were found to only play a minimal role in the variation of life satisfaction (George & Clipp, 1991; Larson, 1978), and some results yielded contradictions (Lohman, 1980).

It was becoming increasingly clear that the physical, environmental social changes associated with aging did not cause a decrease in happiness; on the contrary, researchers were beginning to find that life satisfaction remains remarkably stable throughout the life span *regardless* of these inevitable changes (see Hertzog & Rogers, 1981; Horley & Lavery, 1995; Larson, 1978; Stock et al., 1983). SWB research began to uncover that life satisfaction was not influenced by objective life conditions; it was instead influenced by the *subjective experiences* of those conditions that caused life satisfaction to change. By definition, SWB refers to something more than just objective life circumstances. If life satisfaction could be explained completely by the objective conditions in one's life, then there would be no need to investigate subjective assessments of the quality of one's life.

### ***2.4.2.2) More recent research***

In 1981, Campbell stated that “the literary image of the crotchety old person, dissatisfied with everything, is not a very realistic picture of old people” (p. 203). Contemporary society still has the expectation that the life satisfaction of older adults is negatively affected by age related losses, such as disintegration of roles and relationships, degeneration of psychophysical functioning, as well as the widespread ageist attitudes society holds. However, socioemotional selectivity theory hypothesizes that people may in fact become happier and more satisfied with their lives as they get older (Carstensen, 1995), due to the fact that people become more conscious of the time they have left to live as they move into the final years of their lives. Older individuals become more aware of their impending mortality, thus become more focused on the ways in which they can make the time they have left as enjoyable as possible. For example, Carstensen, Isaacowitz, and Charles (1999) found that compared to young adults, older adults are more likely to place emphasis on the emotional aspects of potential social interactions and remember the emotional content of their experiences. Additionally, older adults have been found to be more proficient in regulating their emotions than their younger counterparts (Gross et al., 1997). When taking into account these processes, it seems reasonable to suggest that life satisfaction should increase as people get older.

However, the literature on life satisfaction and its relation to age do not converge on a common finding. Recent empirical research has found life satisfaction to neither increase nor decrease as a person ages (Diener & Suh, 1998; Kunzmann et al., 2000; Lucas & Gohm, 2000; Mroczek & Kolarz, 1998; Mroczek & Spiro, 2005; Pinquart, 2001; Schilling, 2006; Staudinger, 2000). Many studies have concluded that there is no relationship between age and life satisfaction (Hamarat et al., 2002; Wallace, Bisconti, & Bergeman, 2001), whilst others have found life satisfaction to decrease with age (Chen, 2001; Freund & Baltes, 1998). Prenda and Lachman (2001) on the other hand, found that that age had a positive linear relationship

to life satisfaction in a large sample of US citizens ranging from ages 25-74, which suggests that life satisfaction increases as a person ages. In a study conducted by Lang and Heckhausen (2001), the relationship between age and life satisfaction was U-shaped, with participants aged between 45-65 reporting higher levels of life satisfaction than the older and younger groups.

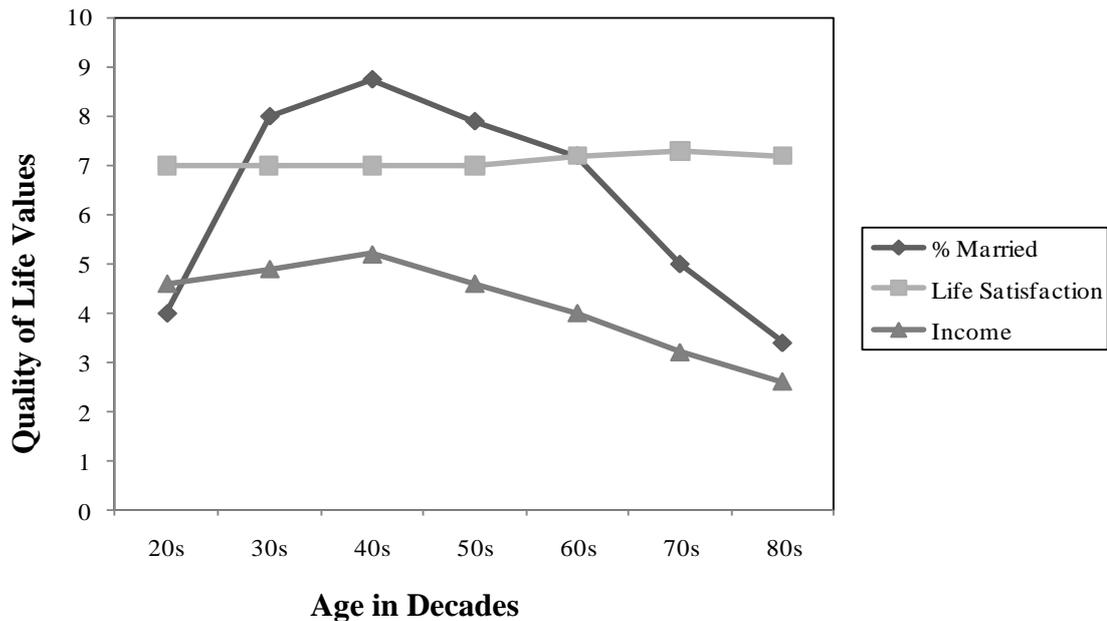
In South African literature, the investigation of the relationship between life satisfaction and age has yielded mixed results. Maluka (2004) found that life satisfaction decreased with age in a sample of community based South Africans, which could be as a result of the differences between Western (individualist) and African (collectivist) cultures. Individuals within Western (individualist) culture have a tendency to construct their self-concept and regulate their behaviour by focusing more on their personal attributes (such as their traits, abilities, motives and values) (Realo, Koido, Ceulemans, & Allik, 2002). African culture on the other hand, is described as being collectivist, in that individuals predominantly focus on relationships with their significant others in constructing their self-concept (e.g. state, nation, ethnic or religious group, family) (see Kagitcibasi, 1997; Realo, 2003; Triandis, 1995, for reviews). In collectivist societies, the goals and needs of an in-group will take priority over the goals and needs of the individual, thus they experience strong levels of social support which could in turn buffer negative or stressful events (Suh, 2000). Individualist cultures on the other hand, are more focused on personal freedom in that they choose their personal goals and lifestyles, but a consequence of this is that there is a lack of strong social support, thus adverse life events might have more severe consequences (Suh, 2000). Westaway and Maluka (2005), and Westaway, Maritz, and Golele (2003) on the other hand, found that age did not have a significant effect on life satisfaction scores in South African samples.

Although there have been mixed results regarding life satisfaction and its relation to age, most researchers have found that life satisfaction does not decrease as a person ages. A

large SWB study consisting of 60,000 individuals in adulthood across 40 nations was conducted by Diener and Suh (1998), and they found that there was a slight upward trend in life satisfaction of people aged between 20 and 80. Inglehart (1990) carried out SWB research across 16 nations, using the data from the Eurobarometer studies that are conducted twice a year to analyse the SWB in those societies. It was found that young adults and old adults did not differ in their experience of life satisfaction. Similarly, Okma and Veenhoven (1996), using the Eurobarometer studies across eight nations, reported that life satisfaction graphically showed an almost flat line with age increase, and that participants ranging from 18 to 90 showed almost no change in life satisfaction. There is evidently a large discrepancy between current research and Wilson's (1967) theory that youth predicts life satisfaction, which may be as a result of the elderly becoming more involved in life domains and staying healthier for longer than previous generations (Bass, 1995).

This stability in life satisfaction demonstrates the impressive ability people have to adapt to their conditions. Figure 1 shows the mean levels of life satisfaction across the lifespan from the Diener and Suh (1998) 40 nation study. It is clear from this graph that there were sharp declines in income and percentage of participants that were married from middle to late adulthood, yet life satisfaction remained remarkably stable despite the decline in these objective life conditions. Some researchers give the explanation that this stability in life satisfaction across the lifespan is a result of the way individuals readjust their goals as they age (e.g. Campbell et al., 1976; Rapkin & Fischer, 1992). Ryff (1991) supports this theory, concluding that older adults have a closer fit between their ideal and real self-perceptions than younger adults. Brandtstadter and Renner (1990) proposed that people have two types of coping strategies to overcome adverse life events: the first being assimilative coping, which is the process in which individuals actively change their life circumstances. The second coping strategy is accommodative coping, which refers to the readjustment of personal preferences and goals to given situational constraints. Although there is a positive relationship between

life satisfaction and these two coping strategies, Brandtstadter and Renner (1990) found that as individuals aged, there was a gradual shift from the assimilative to the accommodative coping style. According to Diener and Suh (1998), the trend in the graphs in Figure 1 shows that objective conditions (such as marriage and income) did not play a role in overall life satisfaction.



*Figure 1.* Quality-of-life variables. Adapted from “Subjective well-being and age: An international analysis.” by E. Diener and E. M. Suh, 1998, *Annual Review of Gerontology and Geriatrics*, 17, p. 310.

*Note.* % Married is percentage divided by 10.

#### 2.4.3) Sociodemographic variables as predictors of life satisfaction

Sociodemographic characteristics, such as income and gender, tend to be only weakly or even unrelated to average levels of life satisfaction (Avia & Vazquez, 1998; Diener, 1984, 2000; Diener & Suh, 1998; Inglehart, 1990; Maluka, 2004; Marmot et al., 1997; Piquart & Sorensen, 2000; Ryff & Singer, 1998). Brickman and Campbell’s (1971) “hedonic treadmill” theory explains that people can adapt to even the most extreme positive and negative life

circumstances. In other words, people have life satisfaction set points to which they inevitably return after adverse life events (Headey & Wearing, 1989; Larsen, 2000; Williams & Thompson, 1993). Although individuals initially react to life events such as retirement, moving to a retirement home, getting married and widowhood, they eventually return to their baseline life satisfaction that is determined by their inborn temperaments (Lykken & Tellegen, 1996).

#### ***2.4.3.1) Gender***

Research on life satisfaction in older adulthood has found no significant associations between gender and life satisfaction (Lang & Heckhausen, 2001; Prenda & Lachman, 2001). In a study conducted by Fugl-Meyer, Melin and Fugl-Meyer (2002) using a sample of individuals aged between 18 to 64 years it was found that life satisfaction is completely independent of gender. This insignificant relationship between gender and life satisfaction was also found in South Africa in a study conducted by Westaway, Olorunju and Rai (2007).

#### ***2.4.3.2) Retirement and type of residence***

Retirement has long been considered a milestone which marks the passage into late adulthood. The process of retiring is not merely an objective life course transition; it is also a subjective developmental and social-psychological transformation that may very well play a role in a person's well being (Moen, 2001). Although some aspects of retirement are viewed as positive, such as movement away from demanding and stressful careers, some are viewed more negatively, such as loss of social networks among co-workers, loss of occupational attachments, as well as loss of a prominent anchor in their identities (Kim & Moen, 2002). Retirement could thus have an impact on a person's overall well-being.

The empirical evidence around retirement and life satisfaction thus far is inconsistent. Previous research has found that most retirees are satisfied with their lives (Bossé, Aldwin, Levenson, & Workman-Daniels, 1991; Calasanti, 1996; Crowley, 1985; Ekerdt, Vinnick, & Bossé, 1989; Herzog, House, & Morgan, 1991; Midanik, Soghikian, Ransom, & Teckawa,

1995; Palmore, Burchett, Fillenbaum, & George 1985; Reitzes, Mutran, & Fernandez 1996; Szinovacz, 2003; Wan, 1985), and that there is no significant impact of retirement on life satisfaction (Bonsang & Klein, 2011; Gall, Evans, & Howard 1997). Other researchers on the other hand, have found a negative association between life satisfaction and retirement (Ellwell & Maltbie-Crannel, 1981; Kim & Moen, 2001). Life satisfaction has been found to decrease in as many as one third of individuals after retirement (Davis, 2007), but most people report that they are satisfied with their lives after retirement (Calvo, Haverstick, & Sass, 2009).

Length of retirement plays a significant role in satisfaction levels, as individuals have the ability to adapt and thus stabilize their feelings of life satisfaction after a period of adjustment (Pinquart & Schindler, 2007). This could theoretically apply to adjustment to living in a retirement village. An individual who has just moved in to a retirement village could still be in a period of adjustment, thus influencing their reports of life satisfaction. A study conducted by Heybroek (2011) showed that there are distinct phases in adjustment to retirement that influences life satisfaction: three years before retirement and three years after retirement showed the greatest variations in life satisfaction. This means that life satisfaction is influenced (either positively or negatively, depending on the individual circumstances surrounding the retirement transition) when a person has been retired for three years or less, but moves back into its set point stability after that period of adjustment (Heybroek, 2011). The same study found that individuals living in a retirement village reported higher life satisfaction compared to those living independently. However, the adjustment to living in a retirement village depends largely on the attitude and adjustment capability of the individual, the possibility of the retirement village of satisfying their needs, as well as the attitudes of the community (Silin, 2001). Another study investigating differences in life satisfaction with regard to type of residence in late adulthood found that there were no significant differences in life satisfaction between individuals living in a retirement home or living independently (Brajković et al., 2011).

### *2.4.3.3) Marriage and widowhood*

Research shows that marital status can play an important role in life satisfaction (Blieszner, 2000; Hatch, 1999; Morgan, 1992). Recent studies have found that marriage is associated with increases in life satisfaction, however this only occurs near the beginning of a marriage or when the married persons are young (Easterlin, 2003; Lucas et al., 2003). Mroczek and Spiro (2005) found married people to report higher life satisfaction in a sample of midlife and older male war veterans. Additionally, studies using large, representative samples have found that married individuals reliably reported higher SWB than unmarried individuals (e.g. Glenn, 1975; Lee, Seccombe, & Shehan, 1991). The relationship between marriage and SWB has been found to be robust, in that it is not limited to certain populations, and does not disappear when a variety of demographic variables are controlled (see Clark & Oswald, 1994; Diener, Gohm, Suh & Oishi, 2000).

A possible explanation for the positive association between marriage and life satisfaction is the selection hypothesis. According to this hypothesis, certain people have the psychological characteristics that predispose them to experience marital events (Mastekaasa, 1992). For instance, people that are happy tend to be more pleasant and outgoing, which in turn makes them more successful in finding a marital partner. Unhappy people, on the other hand, are more prone to psychological problems that could prevent them from getting married or make them more prone to getting divorced.

Some studies have found no significant differences between married and unmarried individuals with regard to global life satisfaction. In a study conducted by Brajković et al. (2011) using a sample of retirees, no significant differences in life satisfaction with respect to marital status were found; however, they did find a significant difference in life satisfaction between those who had children and those who did not. The possibility of insignificant differences between married and unmarried individuals with regard to life satisfaction can be explained by Caplan's (1964) crisis model. According to this theory, short-term changes in

SWB ratings are experienced after marriage, however, as people have time to adapt to the marriage, their SWB should return to their previous levels of life satisfaction (Lucas et al., 2003).

When investigating changes in marital status, such as widowhood, Lucas et al. (2003) found that being widowed can create downward pressures on overall life satisfaction. However, most widows rate their lives as satisfying, and bereavement does not necessarily alter overall life satisfaction (George & Clipp, 1991). In a study conducted by Bennett (2005) investigating the effects of widowhood on psychological well-being, it was found that only recent widowhood significantly influences it. It has been found that individuals who are widowed at a younger age suffer more than those in late adulthood, due to the fact that older widows are widowed for longer and have thus had the time to become accustomed to it (Lelkes, 2008). Caplan's (1964) crisis model has explanatory power for the adaption to widowhood over time, in that people return to their previous levels of SWB after a period of adjustment (see Bonanno & Kaltman, 1999; Jacobs, 1993, for reviews).

#### **2.4.4) Summary of theories describing the relationship between life satisfaction and age**

A number of theories have been formulated to explain why global life satisfaction does not decrease with age. Firstly, Carstensen's (1995) socioemotional selectivity theory posits that individuals become more aware of their impending mortality as they age, and thus place greater emphasis on emotional goals such as the formation of meaningful relationships. Secondly, Campbell et al. (1976) and Rapkin and Fischer (1992) suggest that global life satisfaction remains stable throughout the lifespan as a result of goal readjustments within late adulthood, and Ryff (1991) has found that older adults have a more accurate fit between their real and ideal self perceptions than their younger counterparts. Finally, Brandtstadter and Renner (1990) proposed that older adults experience a shift from an assimilative to an accommodative coping strategy, which lends more focus to readjustment of goals in this age group. Although the theories each give a unique explanation for the stability of life

satisfaction through the lifespan, they all converge to illustrate how changing goals facilitate adaption to deteriorating conditions associated with aging. Older adults do not experience a decline in life satisfaction due to the fact that their goal changes assist them in coping with these circumstances.

It has become increasingly clear that global life satisfaction judgments do not plummet as a person ages; that people have the remarkable ability to cope with the declines that occur in old age. It is important to note that the findings on the relationship between life satisfaction and age are based on data collected with the Satisfaction With Life Scale (SWLS; Diener et al., 1985), or similar scales designed to measure life satisfaction from a global point of view. By using a more recent revision of this scale, namely the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998), where individuals are asked to evaluate their past, present or projected future life satisfaction, differences between age groups could potentially be found.

## **2.5) Temporal dimensions of life satisfaction**

As reviewed earlier in this thesis, global life satisfaction does not seem to decline with age (Diener & Suh, 1998; Ingelhart, 1990; Kunzmann et al., 2000; Lucas & Gohm, 2000; Mroczek & Kolarz, 1998; Mroczek & Spiro, 2005; Okma & Veenhoven, 1996; Pinquart, 2001; Prenda & Lachman, 2001; Schilling, 2006; Staudinger, 2000; Westaway & Maluka, 2005; Westaway et al., 2003), but these investigations assessed individuals' *overall* life satisfaction, that is, the global judgments they made about the conditions of their lives *at a specific moment in time*. In longitudinal studies investigating life satisfaction, individuals are asked to repeatedly assess their current life satisfaction, which gives information on the actual time-related consistency of life satisfaction. By investigating the trajectories of life satisfaction (in other words, the past, present and future evaluations of life satisfaction for an individual at a single moment in time), differences between individuals can potentially be found with regard to retrospective and prospective views of the past and the future (Fleeson &

Heckhausen, 1997). When individuals consider their past or their future, they often express perceived or expected changes in their life satisfaction (Aldwin et al., 1996; Lachman et al., 2008; Newby-Clark & Ross, 2003), due to the fact that this type of evaluation represents a person's perceived rather than actual trajectories of life satisfaction (Rocke & Lachman, 2008).

Lachman et al. (2008) conducted a study on past, present and future life satisfaction in adults aged 24 to 74, in which the participants were asked to evaluate their past, present and future life satisfaction on two occasions 10 years apart. They found that over 9 years, present life satisfaction remained reasonably stable, but the temporal dimension of life satisfaction differed among the various age groups. The younger participants (aged below 65) evaluated their present satisfaction as higher than the past, whereas the older participants (aged above 65) perceived the past and present as equally satisfying. After the age of around 65, participants expected the future to be less satisfying than the present, contrary to the younger participants, who expected future gains. The results of this study suggest that future life satisfaction is expected to increase throughout much of adulthood, to plateau in the 60s, and decline thereafter. Additionally, older adults are said to evaluate their lives through a subjective comparison of their past in relation to their present or future (Baiyewu & Jegede, 1992; Ryff, 1991; Shmotkin, 1991; Shmotkin & Hadari, 1996), that is, that their current evaluations may be influenced by their past experiences.

As demonstrated in this research, there are certain variables and components of SWB that apparently do change as people grow older. A lifespan developmental perspective on motivation (Baltes et al., 2006; Freund, 2006; Lachman, 2004) suggests that individuals in early adulthood have a primary focus on continued identity formation and growth, and they want to see self improvement over time, whereas with adults in later adulthood, the focus shifts to maintenance and avoidance of losses, with accompanying adjustments in goals and standards. In other words, young adults are more likely to have a more future orientated life

satisfaction, whereas older adults may have a more past and present orientation to their life satisfaction (Charles, Mather, & Carstenson, 2003; Lachman et al., 2008).

Researchers have found that younger adults are more likely to recall negative information than older adults, and they are likely to recall more negative than positive past experiences (Lachman et al., 2008). However, older adults recall more positive than negative information (Charles et al., 2003). This supports the hypothesis that younger adults are more likely to recall the negative information from their past and see it as worse than it really is, while older adults will see the past as better than or very similar to the present. Due to the fact the younger adults are more likely to be thinking about ideal or anticipated change, they will typically assess the past as less satisfying than older adults do, and they will expect the future to be better than it turns out to be. Older adults may be more content with the way things are going, which may be as a result of their perceived and actual ratings being closer than those of younger adults (Robinson & Ryff, 1999).

When individuals reflect on their past and future in addition to their present, they begin to consider their past experiences as well as trigger age-graded normative future changes and developmental tasks (Rocke & Lachman, 2008). Additionally, the shift in focus from growth (in early adulthood) to an orientation more focused on the maintenance and avoidance of loss (in later adulthood) (Freund, 2006; Lachman, 2004) could facilitate differences between young and older adults in past, present and future life satisfaction. Moreover, differences between early and late adulthood with regard to positive and negative information recall (Charles et al., 2003), as well as the steady shift from a limitless to a more limited time perspective (with increasing age) (Carstensen et al., 1999; Heckhausen, Dixon, & Baltes, 1989), may contribute to significant differences in the trajectories of life satisfaction in early and late adulthood.

## 2.6) Positive affect

Over the course of a person's life, he or she is likely to experience a vast range of pleasant and unpleasant emotions or moods as well as express an array of positive and negative evaluative sentiments or attitudes. The word *affect* is used to represent this spectrum of feeling states and attitudes (Fredrickson & Losada, 2005), as well as the "online" evaluations that occur in their lives (Diener et al., 1999, p. 277). Positive affect refers to the pleasant end of this spectrum (e.g. feeling grateful, upbeat, expressing appreciation), while negative affect refers to the unpleasant end (e.g. depression, worry, anxiety) (Fredrickson & Losada, 2005).

Rosenberg (1998) put forward the notion that the most common forms of affective experiences have a hierarchical structure according to the specificity, temporal stability, pervasiveness in consciousness, and effects on other psychological systems. Rosenberg distinguished between affective traits, moods and emotions. Affective traits, which are defined by Rosenberg (1998) as "stable predispositions toward certain types of emotional responding" that "set the threshold for the occurrence of particular emotional states" (p. 249), were placed at the top of the hierarchy, while moods, which "wax and wane, fluctuating throughout or across days" (p. 250), were considered to be subordinate affective traits. Emotions, which are "acute, intense, and typically brief psychophysiological changes that result from a response to a meaningful situation in one's environment" (p. 250) were seen as subordinate to both affective traits and moods, and are placed at the bottom of the hierarchy.

### 2.6.1) Gratitude as a positive affective component of SWB

Gratitude, like other affective components of SWB, can theoretically be conceptualized as an emotion, mood or affective trait. An affective trait is an individual's immediate phenomenal experience of an emotion, and it describes a person's tendency or disposition to experience an emotion (McCullough et al., 2002; McCullough, Kilpatrick, Emmons, & Larson, 2001). On the other hand, an affective state involves the more temporary

emotions or longer duration moods (Wood, Maltby, Stewart, Linely, & Joseph, 2008). Thus, if a person is characterized by the affective trait of gratitude, he or she may not experience grateful emotions every moment, but will be more likely to experience gratitude in response to a benefit than most, in other words he or she will be more predisposed to feeling gratitude (Emmons & McCullough, 2004). The present study is concerned primarily with gratitude as an affective trait, that is, the individual differences in how frequently and intensely grateful affect is experienced. The term trait gratitude will also be used interchangeably with *the gratitude disposition/dispositional gratitude* or *gratitude* in this thesis.

There is significant theoretical evidence that trait gratitude belongs to the positive affective component of SWB, as there have been several theorists and researchers that have discovered that gratitude typically has a positive emotional valence (Fredrickson, 1998, 2001; Lazarus & Lazarus, 1994; Mayer, Salovey, Gromberg-Kaufman, & Blainey, 1991; McCullough et al., 2002; Ortony, Clore, & Collins, 1988; Weiner, 1985). Emmons and McCullough (2003) found gratitude to be a significant component of SWB, and found significant evidence that the grateful disposition is related to the more affective component of SWB. McCullough et al. (2002) tested the contribution of gratitude to the affective component of SWB by comparing the scores on the Gratitude Questionnaire-Six Item Form (GQ-6: McCullough et al., 2002) (a dispositional gratitude measure) with the scores of the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). The GQ-6 had a significant positive relationship with the Subjective Happiness Scale ( $r = .47$ ).

The Gratitude, Resentment, and Appreciation Test (GRAT; Watkins, Porter, & Curtis, 1996), another test developed to measure dispositional gratitude, as well as the GQ-6, have been positively associated with positive affectivity ( $r = .31$  and  $r = .36$  respectively) (McCullough et al., 2002; Watkins, Porter, & Miller, 1997), as measured by the Positive and Negative Affect Scales (PANAS: Watson, Clark, & Tellegen, 1988). These relationships have

been found to be reliable, and provide considerable evidence that dispositional gratitude is related to the affective component of SWB.

It is important to note that gratitude exists as a separate entity, in other words, although gratitude has the tendency to overlap with other positive feelings, it still remains distinct from them. McCullough et al. (2002) found gratitude and life satisfaction to be separate constructs through confirmatory factor analysis, thus providing empirical evidence that gratitude and life satisfaction represent different components of SWB. Although it is possible to find overlaps with positive emotions, such as vitality and optimism, gratitude also holds a distinctive pattern of judgments that distinguishes it from happiness (Weiner, 1985).

Peterson and Seligman (2004) constructed the Character Strengths and Virtues framework (CSV), which describes and classifies strengths and virtues that enable human thriving. Within this framework, gratitude is classified as a strength of transcendence, that is, strengths that forge connections to the larger universe and provide meaning. Gratitude can be thought of as a virtue that contributes to living well, and is defined as a trait characterized by an enduring thankfulness that is sustained across situations over time (Peterson & Seligman, 2004). Although gratitude has been defined by Peterson and Seligman (2004) as a trait, McCullough et al. (2001) theorized gratitude as a moral affect. This suggests that although gratitude has trait characteristics, it is also emotionally laden, meaning that it could be classified as positive affect within a SWB model.

### **2.6.2) The relationship between age and gratitude**

There are many different ways in which to assess SWB using a variety of different scales, but for most researchers, the study of SWB involves the study of both positive *and* negative affect. Earlier research has found that positive and negative affect are only moderately correlated (Bradburn, 1969), and more recent empirical evidence has reached the same conclusion (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000). Additionally, the experience of positive affect is not related to the same experiences in a person's life that

elicits negative affect (Baker, Cesa, Gatz, & Mellins, 1992; Diener & Larson, 1984; Watson et al., 1988), therefore it would be more valuable to investigate these constructs separately in order to investigate mechanisms involved in the relationship between age and SWB (Charles, Reynolds, & Gatz, 2001). High SWB is associated with high positive affect, low negative affect, or a combination of both. As this study is focusing on the positive psychological components of SWB, and the field of positive psychology encompasses valued subjective experiences (Seligman & Csikzentmihalyi, 2000), gratitude as positive affect will be investigated in order to broaden knowledge on the factors that not only influence, but promote human flourishing.

Research on the relationship between age and positive affect has yielded mixed results. Gross et al. (1997) found that positive affect increased slightly from early adulthood to late adulthood. Similarly, Mroczek and Kolarz (1998) found an increase in positive affect with age, but found that this was only true for women, whereas men only increased in positive affect with age if they scored low on extraversion. In contrast to these findings, large cross-cultural studies have consistently found positive affect to decrease with age (Diener & Suh, 1998; Lucas & Gohm, 2000). Earlier research has found positive affect to remain relatively constant throughout the lifespan (Barrick et al., 1989; Costa et al., 1987; Vaux & Meddin, 1987), while a study by Stacey and Gatz (1991) found that positive affect remained fairly stable, although declining slightly in late adulthood. Overall, there are very few significant age differences that have been found with regard to the positive affective component of SWB, but when age differences were found, some suggested that positive affect increases with age (e.g. Mroczek & Kolarz), while others found positive affect to decrease as a person gets older (Diener & Suh, 1998; Stacey & Gatz, 1991).

Most research conducted on the experience of positive emotions has made use of samples of university students, and as a result, there is limited understanding of positive emotions across the lifespan (Kashdan et al., 2009). With regard to gratitude as a positive

affective component of SWB, empirical evidence suggests that older adults tend to show higher levels of gratitude than younger adults (Kashdan et al., 2009). Additionally, Linely et al. (2007) found that character strengths, as defined by the *Character Strengths and Virtues: A Handbook and Classification* (Peterson & Seligman, 2004), are positively associated with age, which suggests that there may be a proclivity for character development over the lifespan, as suggested by Erikson (1959) and Maslow (1954). Many cross sectional studies have found that there is a marked improvement in emotional experience from early to late adulthood (Carstensen et al., 2011), in other words, older individuals are less reactive to both good and bad daily life events compared to younger adults, and they are able to maintain a relatively stable mix of emotions regardless of positive or negative events (Roehke, Li, & Smith, 2009).

In addition to explaining the consistency of life satisfaction over the life span, Carstensen's (1995) socioemotional selectivity theory can provide premise as to why gratitude increases with age: individuals in late adulthood tend to appreciate and invest more time in the things in life that are most important to them. In other words, older adults generally demonstrate more positive reactions to life events than younger adults, which is partially explained by the fact that older people tend to become more focused on the 'here and now' (Carstensen et al., 1999), as well as invest more time in emotionally meaningful relationships (Carstensen, Gross, & Fung, 1997). As existing relationships provide more opportunity for more frequent acts of altruism (which in turn promotes feelings of gratitude), individuals in late adulthood may have a higher propensity for viewing gratitude as a positive, worthwhile and meaningful experience in comparison to their younger counterparts (Kashdan et al., 2009).

## **2.7) Domain satisfaction**

This thesis has thus far examined two components of SWB, that is, life satisfaction (both global and temporal) and gratitude as positive affect. The final component to be

considered in the hierarchical model of SWB is domain satisfaction. Domain satisfaction is the subjective evaluation of the specific domains in one's life, in other words, it is the personal assessment an individual makes about satisfaction with specific areas in his or her life (e.g. health, job satisfaction, social support etc.). By looking at domain satisfaction in an individual's life, one can gather distinctive information about his or her overall well-being, that is, it provides important information about the way an individual constructs his or her global well-being judgments. This study will look at the domain satisfaction of health in both early and late adulthood.

### **2.7.1) Satisfaction with health**

The domain satisfaction of health is the subjective evaluation of the physical condition, that is, it is the perceived assessment of one's health in that individuals rate their own health status (Bishop, Martin, & Poon, 2006). By focusing on health satisfaction as a domain satisfaction of SWB, this study aims to uncover whether perceptions of health satisfaction differ in early and late adulthood, and whether these perceptions are related to SWB.

Satisfaction with health has been found to be an important component of SWB, in both the elderly and the general population (Baltes & Smith, 2003; Coyle et al., 1994; also see older research: George & Landerman, 1984; Larson, 1978; Markides & Martin, 1979; Sauer, 1977), and has also been found to be a positive predictor of happiness (Berg, Hassing, McClearn, & Johansson, 2006; Borg, Hallberg, & Blomquist, 2006; Bowling & Farquhar, 1996; Chatters, 1988; Chen & Short, 2008; Li, 2005; McCamish-Svensson, Samuelsson, Hagberg, Svensson, & Dehlin, 1999). Of all the domain satisfactions that can be investigated, satisfaction with one's health has been found to be one of the most important domains contributing to well-being in old age (Campbell, 1981; Foo, 2000; Veenhoven, 1996; Warren, 1986; Westaway & Gumede, 2001).

In South African literature, Westaway (2006) found that in a sample of residents in an informal settlement in Soweto, satisfaction with health explained an average of 36% of the variance in life satisfaction over a four year period. Additionally, Westaway and Gumede (2001) found that health satisfaction predicted personal quality of life, in that it explained 38% of the variance. These findings demonstrate that in South Africa, satisfaction with one's health can have a significant impact on overall SWB.

### **2.7.2) The relationship between age and satisfaction with health**

In order to understand the various aspects of aging, one needs to distinguish between objective and subjective perceptions of well-being. As early as 1981, researchers found that individuals in late adulthood tend to show high subjective satisfaction with life conditions that are objectively worse than the conditions needed to elicit the same degree of satisfaction in younger adults (Hertzog & Rogers, 1981). A common postulation that has embodied many SWB studies is that the subjective evaluation of a person's life is an accurate representation of his or her objective life conditions. As pointed out earlier in this thesis, the objective conditions in one's life do not have a significant influence on the variation in well-being (Diener et al., 1999). Due to the fact that older adults experience a greater concern for their health, one would expect the deteriorating health conditions associated with this developmental stage to play a significant role in their SWB. However, Brief, Butcher, George, and Link (1993) found that objective physical health did not have a significant influence on well-being ratings. It is in fact the subjective evaluation of one's health status (actual health) that has an influence on a person's well-being (Diener et al, 1999). Jones, Rapport, Hanks, Lichtenberg, and Telmet (2003) found that SWB was better predicted by the subjective evaluations of health in participants aged 65-79, than by their actual health.

As reviewed earlier in this thesis, well-being remains remarkably consistent throughout the human lifespan. However, when considering age trajectories of the subjective experience of physical health, a different picture emerges. Empirical studies on how health

satisfaction changes with age have failed to reach an unequivocal conclusion (Liang et al., 2005). Some of the research has found that older individuals have been found to express lower satisfaction with health than younger individuals (Campbell et al., 1976; Coyle et al., 1994; Deaton, 2010; Gwozdoz & Sousa-Poza, 2009; Lichtenberg & Telmet, 2003; Svedberg, 2006). Levkof, Cleary and Wettle (1987) found that individuals above the age of 65 tend to evaluate their health as worse than individuals in middle adulthood, even when objective health and other demographic variables were controlled for. In South Africa, it was found that older adults across all races reported poorer health than younger adults (Case & Wilson, 2000). If one were to look at the adult lifespan, between 2.6% and 7.6% of variance in subjective evaluations of health satisfaction can be accounted for by age (Hertzog & Rogers, 1981).

There has, on the other hand, been research that has found that health satisfaction increases with age. In an older study conducted by Ferraro (1980), it was found that older individuals diagnosed with functional disability or a chronic condition were more likely to rate their health as excellent or very good compared to younger adults. Idler (1993) also observed a “linear, positive association of age with better self-assessed health” (p. 297). Additionally, Pinqart (2001) found that health satisfaction only significantly decreases in very old age (75+).

Psychological theories on lifespan development posit that there are various strategies by which people adapt to the age-related changes that accompany late adulthood to maintain a positive sense of well-being. One such strategy involves older adults identifying with younger ages, hence they compensate for the negative implications of getting older by feeling young (Heckhausen & Schulz, 1998; Sneed & Whitbourne, 2003). This strategy might be related to the theory of positive illusions. Research that has been conducted on positive illusions has found that SWB is promoted by people viewing themselves as more favourably than objective indicators may warrant (Taylor & Brown, 1988). This suggests that although individuals in

late adulthood may be in a stage of declining physical health, they may have the positive illusion that they are more healthy and vital than they are in reality, thus giving them higher SWB.

Another hypothesis that assists in explaining why health satisfaction increases with age is through a coping mechanism called descending comparison (Eriksson, Undén, & Elofsson, 2000; Wills, 1997). Through the mechanism of comparing oneself to others, individuals in late adulthood can evaluate and construct reality and cope with negative life events. When it comes to health satisfaction, older adults compare themselves to others that they believe are in a worse off situation in an effort to improve their subjective experience of well-being (Bunk, Gibbons, & Reis-Bergan, 1997). Additionally, people in late adulthood tend to compare themselves to peers in their age group: as people age, they tend to overestimate their health in relation to others (Eriksson et al., 2000). Neri (2007) found that individuals in late adulthood develop a positive perception of themselves when comparing themselves to others. Moreover, older individuals with high levels of health satisfaction could be comparing their present situation, not with others, but rather with their own in earlier periods of their lives (Idler, 1993).

As people age, they tend to change the strategies they use to evaluate specific life domains (such as health satisfaction) (McAdams, Lucas, & Donnellan, 2011). For instance, socioemotional selectivity theory (Carstensen, 1995) posits that as people age, they view their time as limited, and thus place more focus on their present circumstances, and less focus on how their potential future circumstances could turn out to be. Research on quality of life in the elderly has found that these individuals have adaptive strategies that assist in the adjustment of their goals to their physical conditions (Neri, 2007), in other words, they change their expectations and norms as their health deteriorates (Idler, 1993). Overcoming the difficulties and obstacles associated with aging, along with adaptation, is known as resilience (Wagnild, 2003), and it is possible that this mechanism can justify why the psychological

resilience is maintained in the elderly, even when their biological resilience is compromised (Richard, Gohm, & Gohm, 2003).

## **2.8) Interrelationships between SWB variables**

### **2.8.1) Relationship between global life satisfaction and the temporal dimensions of life satisfaction**

Pavot et al. (1998) revised the Satisfaction With Life Scale in order to allow for a more comprehensive assessment of past, present and future dimensions of global life satisfaction. For example, an individual in early adulthood may have a reasonably average level of satisfaction for his or her present life, but anticipate high levels of life satisfaction in his or her future. On the other hand, an individual in late adulthood may assess his or her present life as highly satisfying, but anticipates a drop in satisfaction in the future due to health or economic reasons. If past, present and future life satisfaction were not investigated, these differences would be obscured.

During investigation of the relationship between global life satisfaction and the temporal dimensions of life satisfaction, Pavot et al. (1998) found global life satisfaction to have significant positive correlations with past ( $r = .72$ ), present ( $r = .92$ ) and future ( $r = .59$ ) life satisfaction. These results indicate that global life satisfaction is most robustly related to the present dimension of life satisfaction, and that the traditional Satisfaction With Life Scale is most closely assessing present life satisfaction.

### **2.8.2) Relationship between life satisfaction and gratitude**

The relationship between life satisfaction and gratitude has been substantially investigated, and many researchers have found the relationship between these two variables to be significant (Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2008; Froh, Yurkewicz, & Kashdan, 2009; McCullough et al., 2004; Park et al., 2004; Wood, et al., 2008). Theoretically, dispositional gratitude should be related to life satisfaction (Bono, Emmons, &

McCullough, 2004; Emmons & Crumpler, 2000; Lyubomirsky, Sheldon, & Schkade, 2005; Watkins, 2004; Wood, Joseph, & Linley, 2007b). People with a grateful disposition, tend to experience positive emotions more frequently, and experience a greater satisfaction with life, compared to their less grateful counterparts (McCullough et al., 2002). Additionally, gratitude has been found to have a positive valence, and the more one experiences positive emotions, the more life satisfaction one is likely to experience (Diener, 1984; Emmons & Diener, 1985; Keyes, Shmotkin, & Ryff, 2002). Furthermore, McCullough et al. (2001) found that gratitude acts as a ‘moral barometer’, meaning that one is more likely to notice acts of help and kindness in everyday life, which in turn leads to greater life satisfaction over time.

McCullough et al. (2004) found that individuals who scored high on measures of gratitude also tend to score high on measures of life satisfaction. In the development of the Gratitude, Resentment, and Appreciation test (GRAT; Watkins et al., 2003), it was found that gratitude was robustly related to life satisfaction across three samples of undergraduates. Park et al. (2004) conducted a study in which they investigated the relationship between 24 representative personality strengths and life satisfaction. This study found that gratitude was more strongly related to life satisfaction than all but two of these strengths, even after several demographic variables were controlled for. Life satisfaction and gratitude were positively related ( $r = .43$ ), which suggested that 18.5% of individual differences in the experience of life satisfaction could be accounted for by the amount of gratitude they feel.

Over the last 50 years, personality psychologists have investigated numerous traits related to well-being, and of those traits the 30 facets of the so-called Big Five are amongst the most studied (Wood et al., 2008). The Big Five domains consisted of extravertedness, agreeableness, openness, conscientiousness, and neuroticism, all of which represent the breadth of personality traits at the highest level of abstraction (Goldberg, 1993; John & Srivastava, 1999). Wood et al. (2008) showed that, after controlling for the 30 facets of the Big Five, gratitude predicted 8% ( $r = .28$ ) of individual differences in life satisfaction. It is

important to determine that gratitude predicts well-being above the effects of the Big Five in order to see that it uniquely contributes to well-being, and is therefore not simply ‘reinventing the wheel’ (McCullough et al., 2002). The unique relationship between gratitude and well-being appears substantial, which suggests that gratitude uniquely impacts and predicts well-being, and is therefore a meaningful subject to investigate in future research.

When considering the trajectories of life satisfaction, namely the past, present and future life satisfaction, different patterns may emerge in relation to gratitude. The way in which people anticipate their future and reflect on their past life satisfaction is dependent on the strengths they possess, for example, having gratitude as a signature strength may facilitate satisfaction for the past (Proyer, Gander, Wyss, & Ruch, 2011). Theoretically, gratitude should be related to past life satisfaction, in that it connects one happily to one’s past (Park et al., 2004). However, on further investigation, Proyer et al. (2011) found gratitude to have a very low correlation with past life satisfaction. Additionally, gratitude was found to have a significant positive relationship with present and future life satisfaction, which could be explained by the fact that past research has found gratitude to be robustly associated with optimism for the future (Emmons & McCullough, 2003; Froh et al., 2008). However, this study also found that gratitude was highly predictive in young adults and not older adults (Proyer et al., 2011).

At this point in time, it is safe to say that gratitude is significantly related to life satisfaction; the next question to be answered is why this relationship occurs in the first place? Fredrickson’s (1998; 2001) broaden-and-build theory of positive emotions puts forward that positive emotions appear to “*broaden* peoples’ momentary thought-action repertoires and *build* their enduring personal resources” (Fredrickson, 2004, p. 1369). This theory posits that positive emotions are evolutionary, in other words, human beings have evolved adaptations that build lasting resources, such as intellectual, social, physical and psychological assets (Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006). Gratitude appears to fit

Fredrickson's depiction of a positive emotion, in that it has the capacity to broaden one's perspective as well as build other positive emotions and traits (Lambert, Finchman, Stillman, & Dean, 2009). One such example comes from McCullough et al. (2001), who found gratitude to robustly promote prosocial behaviour. Gratitude also serves to build and strengthen social bonds and friendships (Emmons & Shelton, 2002; McCullough & Tsang, 2004; McCullough et al., 2001), as well as enable a person to have a much higher likelihood of feeling loved and cared for by others (McCullough & Tsang, 2001), thus building a person's social resources. In addition to building social resources, gratitude builds social communities, in that individuals who feel grateful to people they don't know (for example, politicians or artists), feel a much greater personal link to society (Simmel, 1950).

The fact that gratitude builds prosocial behaviour, social bonds and friendships, social resources, and social communities; and life satisfaction has been found to be significantly related to these enduring resources (Aquino, Russell, Cutrona, & Altmaier, 1996; Diener & Fujita, 1995; Martin & Huebner, 2007) suggests that life satisfaction should theoretically be more in a person with a high dispositional gratitude. More than two decades ago, Chatters (1988) found that individuals with a higher grateful disposition have higher life satisfaction, and tend to report fewer physical symptoms of physical illness.

### **2.8.3) Relationship between life satisfaction and satisfaction with health**

The measurement of health satisfaction is not the exact health status as measured by health professionals; satisfaction with health is rather a representation of how satisfied or happy individuals are with their health at that moment in time, which has shown strong associations with life satisfaction in the older population (Al-Windi, 2005; Fernandez-Ballesteros, Zamarron, & Ruiz, 2001; Kim, 1998; Krause, 1990; Lee & Shinkai, 2003; Lindgren, Svardsudd, & Tibblin, 1994; Lohr, Essex, & Klein, 1988; McCamish-Svensson et al., 1999; Simons, McCallum, Simons, & Friedlander, 1992; Yoo, 1997). In a study conducted by Angner, Ray, Saag, and Allsion (2009), it was found that individuals who rated

themselves as healthy also rated themselves as happy with their lives, and those who rated themselves as unhealthy, also rated themselves as unhappy with their lives. An interesting finding in this study was the significant proportion of individuals who rated themselves as unhealthy, also rated themselves as happy, whereas very few who considered themselves to be healthy rated themselves as unhappy. Helliwell and Putnam (2004) found that older people (above 65) are generally less healthy than their younger counterparts, which thus could cause their SWB to drop, although the older adults that perceive themselves as being healthy tend to be satisfied with their lives.

Another study found that in a Swedish sample (age range 60-89 years), subjective ratings of health had the most robust explanatory power for life satisfaction (Borg et al., 2006). Similarly, in a study investigating the predictors of life satisfaction in frail elders, it was found that mean life satisfaction scores were lower than those of more healthy elders, however these differences were very small (Abu-Bader, Rogers, & Barusch, 2002). This same study found that subjective measures of health satisfaction predicted life satisfaction, whereas objective measures did not. Ryff (1989) found older adults (65+ years) to value health satisfaction more than middle aged adults (30-64 years). On the other hand, it has been theorised that people in poor health (such as older individuals who experience declines in overall physical functioning) tend to downplay the importance of their health when evaluating their life satisfaction (Diener et al., 1999). This could essentially mean that older individuals compartmentalise or separate their health satisfaction when they consider how satisfied they are with their lives.

#### **2.8.4) Relationship between gratitude and satisfaction with health**

There has been very little research conducted that explores the relationship between gratitude and health, although some researchers have begun to address this issue. Most of the research done on the subject of gratitude has been conducted by psychologists; therefore it is unsurprising that most research on this construct has been focused on interpersonal and

psychological outcomes. However, much of this research has found evidence that informs how the grateful disposition is related to physical health.

Gratitude has been found to be related to various self-reported health symptoms, as well as subjective stress (Krauss, 2006). McCullough et al. (2002) found that individuals with a higher grateful disposition felt more gratitude towards life circumstances, one of which was gratitude towards physical health. Emmons and McCullough (2003) conducted a series of experiments in order to test the effects of gratitude interventions on physical and psychological well-being. Participants were assigned to the gratitude condition (in which participants had to list at least five things they are grateful for in the past week), the hassles condition (in which participants had to list at least five daily hassles they experienced in the last week), and the events conditions (in which participants listed five events or circumstances that had an effect on them in the last week). The results of this study showed that the individuals assigned to the gratitude condition reported fewer symptoms of physical illness than the participants assigned to the other two groups. These findings illustrate that the tendency to experience gratitude more regularly could theoretically increase an individual's satisfaction with health, due to the fact that people who experience gratitude more often tend to have fewer physical health complaints.

A number of researchers have found that there are significant health benefits to having high dispositional gratitude. High dispositional gratitude has been found to contribute to (a) better quality sleep (Emmons & McCullough, 2003), (b) higher levels of alertness, vitality, enthusiasm, energy, attentiveness and determination (McCullough et al., 2002), (c) heightening immunity in both sick and healthy people (Brydon, Walker, Wawrzyniak, & Steptoe, 2009), (d) spending more time exercising, as well as (e) decreasing the experience physical symptoms, such as pain, headaches, coughing and nausea (Kurtz & Lyubomirsky, 2008; Sheldon & Lyubomirsky, 2006). The significance of these findings is important for the

present study, as one can speculate that satisfaction with health will be higher in a person with high dispositional gratitude as a result of the physical health benefits gratitude seems to illicit.

### **2.9) The lifespan developmental theory (Newman & Newman, 2009)**

The present study adopts Newman and Newman's (2009) theory of development, which is a revised version of Erikson's eight stages of development, in that it extends the number of developmental stages from 8 to 11. Erikson's (1959) theory lends a greater focus to childhood development, while Newman and Newman focus more on the chronological stages of adult development (Newman & Newman, 2009). This study focuses specifically on Newman and Newman's revision of Erikson's eighth stage of development of late adulthood (65 years until death), which was adjusted by Newman and Newman to include two late adulthood stages of development: late adulthood (60-75 years), and elderhood (75 years until death).

Newman and Newman (2009) divided Erikson's late adulthood stage as a result of the difference in developmental tasks experienced by these two age groups. According to Newman and Newman late adulthood (60-75 years) is characterised by a period where one needs to accept one's life, redirect energies into new roles and activities, as well as promoting intellectual dynamism. The elderhood stage (75 years until death) on the other hand has a different set of developmental tasks to resolve. This age group needs to come to terms with the physical changes that accompany aging, as well as develop a psychohistorical perspective and travel through terrain that is yet uncharted.

According to Newman and Newman (2009), individuals in early adulthood (aged 24-34 years) have to resolve developmental tasks such as (a) exploring intimate relationships, whereby men and women explore the possibility of forming relationships that combine emotional closeness, shared interests and a vision for the future, as well as sexual intimacy; (b) childbearing; (c) work and (d) lifestyle, whereby personality characteristics, goals, convictions, and inner conflicts are integrated with social opportunities and resources into an

organizing pattern of actions and choices. During this developmental stage, the young adult's worldview becomes more diverse, and there is a heightening of appreciation for the interdependence of systems (Newman & Newman, 2009).

Although life satisfaction has been found to remain constant throughout the life span, a rapid decline in life satisfaction has been found amongst individuals within the oldest-old age group (85 years and older) (Gwozdoz & Sousa-Poza, 2009). Mroczek and Spiro (2005) found that in a sample of male war veterans, life satisfaction decreased in the oldest-old age group as a result of their awareness of impending death. Researchers also suggest that this decline in well-being is a result of the age related losses during very old age, as explained by Smith, Borchelt, Maier and Jopp (2002, p. 719):

[P]roposals that subjective well-being may decline in old age (especially among the oldest old) are derived from research documenting the accumulation of debilitating health conditions, functional impairments, and personal losses during old age [...]. It is suggested that the increased risk of frailty, loss of functional capacity, and poor health during the period of very old age [...] may place constraints on life satisfaction and overwhelm individuals to such a degree that they moderate their expression of well-being.

The decline in life satisfaction in the oldest-old age group is significant for this study. By adopting Newman and Newman's (2009) developmental model, this study will be looking at the stage in late adulthood where life satisfaction should theoretically still be stable amongst those cohorts.

## 2.10) Conclusion

Research on SWB variables has shown that global life satisfaction remains stable regardless of objective life conditions, and could even increase throughout the lifespan. When temporal dimensions of life satisfaction are considered, significant differences between trajectories of life satisfaction can be found. Evidence suggests that gratitude should theoretically be higher among older compared to younger cohorts, and that health satisfaction either increases or decreases as a person ages. Additionally, the various relationships between these SWB variables have been found to be positive, especially the relationship between gratitude and global life satisfaction. The question is whether these results hold true within a South African population sample. The following chapter outlines the aims and hypotheses that were formulated to uncover these questions in the present study.

## CHAPTER THREE

### Aims and Hypotheses of the Present Study

The main focus of this study was to investigate whether there were significant age differences with regard to the SWB variables. The **primary** aims and hypotheses of the proposed study were the following:

3.3.1) Aim 1: To investigate whether there is a significant difference between individuals in early and late adulthood regarding global life satisfaction (as measured by the Satisfaction With Life Scale [SWLS; Diener, et al., 1985]).

*Hypothesis 1: There will be no significant difference between individuals in early and late adulthood regarding levels of global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985).*

3.3.2) Aim 2: To investigate whether there is a significant difference between individuals in early and late adulthood regarding the temporal dimensions of life satisfaction (as measured by the Temporal Satisfaction With Life Scale [TSWLS; Pavot, et al., 1998]). More specifically, the aim was to compare the two age groups in terms of past, present and future dimensions of life satisfaction.

*Hypothesis 2: The participants in early adulthood will demonstrate significantly lower levels of past life satisfaction, as measured by the Past subscale of the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998), compared to the participants in late adulthood.*

*Hypothesis 3: There will be no significant difference between individuals in early and late adulthood regarding the present dimension of life satisfaction, as measured by the Present subscale of the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998).*

*Hypothesis 4: The participants in early adulthood will demonstrate significantly higher levels of future life satisfaction, as measured by the Future subscale of the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998), compared to the participants in late adulthood.*

- 3.3.3) Aim 3: To investigate whether there is a significant difference between individuals in early and late adulthood with regard to the trajectories of past, present and future life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot, et al., 1998). More specifically, the aim was to compare the temporal dimensions of life satisfaction within each age group.

*Hypothesis 5: The participants in early adulthood will demonstrate significantly higher levels of future life satisfaction compared to their past and present life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998).*

*Hypothesis 6: The participants in early adulthood will demonstrate significantly higher levels of present life satisfaction compared to their past life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998).*

*Hypothesis 7: The participants in late adulthood will demonstrate significantly lower levels of future life satisfaction compared to their past and present life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998).*

*Hypothesis 8: The participants in late adulthood will demonstrate no significant difference between past and present life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998).*

- 3.3.4) Aim 4: To investigate whether there is a significant difference between individuals in early and late adulthood regarding gratitude (as measured by the Gratitude Questionnaire-Six Item Form [GQ-6; McCullough et al., 2002]).

*Hypothesis 9: The participants in early adulthood will demonstrate significantly lower*

*levels of dispositional gratitude, as measured by the Gratitude Questionnaire-Six Item Form (GQ-6; McCullough et al., 2002), compared to the participants in late adulthood.*

- 3.3.5) Aim 5: To investigate whether there is a significant difference between individuals in early and late adulthood regarding satisfaction with health (as measured by the Health Satisfaction Question [HSQ; Chatters, 1988; Coyle et al., 1994; Gwozdoz & Sousa-Poza, 2009]).

*Hypothesis 10: The participants in early adulthood will demonstrate significantly higher levels of satisfaction with health, as measured by the Health Satisfaction Question (HSQ; Chatters, 1988; Coyle et al., 1994; Gwozdoz & Sousa-Poza, 2009), compared to the participants in late adulthood.*

- 3.3.6) Aim 6: The final aim was to investigate the interrelationships between the following subjective well-being variables: global life satisfaction, temporal dimensions (past, present and future) of life satisfaction, gratitude and satisfaction with health.

*Hypothesis 11: There will be significant intercorrelations between global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction for the early adulthood group.*

*Hypothesis 12: There will be significant intercorrelations between global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction for the late adulthood group.*

*Hypothesis 13: There will be significant intercorrelations between global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction for both the early and late adulthood groups combined.*

A secondary focus in the present study was to determine whether global life satisfaction is impacted by objective life conditions in late adulthood.

The **secondary** aims and hypotheses of the present study were:

3.3.7) Aim 7: To investigate whether there is a significant difference between males and females with regard to global life satisfaction in late adulthood.

*Hypothesis 14: There will be no significant difference between males and females with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985).*

3.3.8) Aim 8: To investigate whether there are significant differences between being retired for less than 10 years, being retired for more than 10 years, and not being retired with regard to global life satisfaction in late adulthood.

*Hypothesis 15: There will be no significant differences between individuals retired for less than 10 years, more than 10 years, and not retired individuals with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985).*

3.3.9) Aim 9: To investigate whether there is a significant difference between living in a retirement village and living independently with regard to global life satisfaction in late adulthood.

*Hypothesis 16: There will be no significant difference between individuals living in a retirement village and individuals living independently with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985).*

3.3.10) Aim 10: To investigate whether there is a significant difference between being married and not being married with regard to global life satisfaction in late adulthood.

*Hypothesis 17: The married participants will demonstrate significantly higher levels of global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985), compared to participants who are not married.*

3.3.11) Aim 11: To investigate whether there are significant differences between being widowed for less than 10 years, being widowed for more than 10 years, and not being

widowed with regard to global life satisfaction in late adulthood.

*Hypothesis 18: There will be no significant differences between individuals widowed for less than 10 years, more than 10 years, and not widowed individuals with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985).*

## CHAPTER FOUR

### Methodology

#### 4.1) Introduction

This chapter focuses on the manner in which the primary and secondary aims and hypotheses of the present study were investigated by outlining the research design; the gathering and identification of participants, as well as a demographic description of the sample; what measures were used; the research procedure; and finally, the data analysis methods.

#### 4.2) Research design

The present study has adopted a cross-sectional, single measurement research design. Quantitative data was gathered by the administration of four questionnaires completed by each participant, each of which will be expanded on in this chapter.

##### 4.2.1) Participants and sampling strategy

The sample of participants for the present study involved two different groups, each of which consists of 30 males and 30 females. Group 1 consisted of individuals in early adulthood (age 24-34), with a mean age of 25.20 and a standard deviation of 2.00. Participants in group 1 was selected from Stellenbosch University's third year, honours and masters psychology students, Masters students from the Engineering faculty, and fourth year and Masters Forestry students. Lecturers were contacted to allow for 10 minutes after the lesson to be used for students to fill out questionnaires in the lecture hall/classroom. Group 2 included individuals in late adulthood (age 60-75), with a mean age of 68.77 and a standard deviation of 2.47. Participants in group 2 were selected (using a convenience sampling strategy) from various retirement villages in the Hottentots Holland area. The mean scores for the Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975) was 27.88,

with a standard deviation of 1.54 (see section 3.2.2 for a description of the use of MMSE in selection of participants). Additionally, participants in late adulthood were contacted telephonically, by following snowball sampling.

A total of 147 data sets were obtained during data collection. Of the 147 data sets, 16 were excluded due to problems with inclusion and exclusion criteria. Additionally, 11 participants were excluded as they reflected unreliable response sets. Unreliable response sets were identified by individuals consistently answering in the positive or negative to all the questions with an apparent disregard for the content. For instance, when reversed item scoring is utilized in a Likert scale measure, and the participant answers “strongly agree” to every item, they are directly contradicting themselves. It is thus assumed that the respondent is not fully cognisant of the question and the data obtained is therefore unreliable (Bryman & Cramer, 2004).

After participants were excluded due to inclusion and exclusion criteria and unreliable response sets, a total of 120 (N) data sets were obtained for the present study. The demographic characteristics of the sample are presented in Tables 2 and 3. The frequencies and percentages for the late adulthood group in terms of age distribution, language, highest educational qualification, length of retirement, type of residence and marital status in presented in Table 2.

Table 2

*Demographic Characteristics of Participants in Late Adulthood (n = 60)*

<i>Characteristic</i>	<i>n</i>	<i>%</i>
Age at time of survey:		
60-65	14	23.0
66-70	20	33.3
71-75	26	43.3
Language:		
English	5	91.7
Afrikaans	55	8.3
Highest Educational Qualification:		
Matric	17	28.3
Diploma	10	16.7
Degree (Undergraduate)	9	15.0
Degree (Postgraduate)		
Honours	6	10.0
Masters	5	8.3
PHD	13	21.7
Length of retirement:		
Not retired	12	20.0
Retired < 10 years	22	36.7
Retired > 10 years	25	41.7
Never worked	1	1.7
Type of residence :		
Retirement Village	21	35.0

*Table 2 (continued)*

<i>Characteristic</i>	<i>n</i>	<i>%</i>
Independent	39	65.0
Marital Status:		
Married	45	75.0
Not Married	15	25.0
Widowhood:		
Widowed < 10 years	6	10.0
Widowed > 10 years	6	10.0
Not Widowed	48	80.0

*Note.* Range of years retired = 3 – 23 years; Range of years widowed = 4 - 40 years.

The frequencies and percentages for the early adulthood group with regard to age distribution, language and highest educational qualification are presented in Table 3.

Table 3

*Demographic Characteristics of Participants in Early Adulthood (n = 60)*

<i>Characteristic</i>	<i>n</i>	<i>%</i>
Age at time of survey:		
24-28	52	86.7
29-34	8	13.3
Language:		
English	46	76.7
Afrikaans	14	23.3
Highest Educational Qualification:		
Matric	9	15.0
Degree (Undergraduate)	33	55.0
Degree (Postgraduate)		
Honours	12	20.0
Masters	6	10.0

**4.2.2) Inclusion and exclusion criteria**

All the participants in this study were English and/or Afrikaans speaking males and females in early adulthood (24-34 years), and late adulthood (60-75 years). In order to control for cultural effects, all participants in this study were white. It was required for participants in late adulthood to be cognitively fully functioning in order to partake in this study. This group was screened for any cognitive dysfunction such as dementia, delirium and amnesic disorder using the Mini Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975). To control for educational level, only individuals who had passed a matriculation examination (or an exemption examination) were included in the late adulthood group.

### 4.2.3) Measurements

The questionnaires were translated into Afrikaans. Standardised procedures, such as forward and back translation, were used to ensure the equivalence of the translated questionnaires (Foxcroft & Roodt, 2006).

**4.2.3.1) Biographical Questionnaire (BQ)** (see Appendix A for the English version, Appendix B for the Afrikaans version).

All the participants in this study were asked to fill out their biographical details, that is, their name and surname, age, gender and highest educational qualification (e.g. matric, degree, diploma). Participants in late adulthood were asked additional questions, such as, “How long have you been retired?”, “How long have you been living in your retirement village?”, “Are you married?”, “Have you lost a spouse due to them passing away? If so, when did this happen?”.

**4.2.3.2) Mini Mental State Examination Second Edition (MMSE-2; Folstein et al., 1975)** (see Appendix C for English version, Appendix D for Afrikaans version)

The most common instrument used to screen for cognitive impairment in the elderly is the Mini Mental State Examination (Folstein et al., 1975). This instrument was therefore used to screen the group of individuals in late adulthood for cognitive dysfunction. The 11 questions that make up this test take 5-10 minutes to answer. It measures the individual's orientation, attention, calculation, recall, language and motor skills. The test requires the tester (psychiatric resident, nurse, or volunteer) to make the participant feel as comfortable as possible, to be encouraging, and to ensure that they don't press on specific items that the participant finds challenging.

The first of the two sections of the MMSE requires the participant to respond vocally to questions asked by the tester, which covers orientation, memory, and attention. The maximum score that can be obtained in the first section is 21. The second section of the MMSE tests ability to follow verbal and written commands, write a sentence spontaneously,

and copy a complex polygon similar to a Bender-Gestalt Figure; the maximum score is 9. Because the second section of the test requires reading and writing, those participants with severely impaired vision may find this section particularly challenging, but this can be avoided by using large fonts and by making allowances in the scoring. The maximum total score for the MMSE is 30, and a score below 20 indicates cognitive impairment.

The test-retest reliability of the MMSE was tested using the same examiner, as well as two different examiners, applying the MMSE 24 hours apart. The Pearson coefficient with the same examiner was .887, and with two separate examiners  $r = .827$ , indicating that practice effects were small. The MMSE is a valid test for cognitive functionings (Folstein et al., 1975; Schultz-Larson, Lomholt, & Kreiner, 2007). It separates the cognitively fully functioning individuals from those with cognitive impairment. Its scores have a significant correlation with one of the standard tests of cognition, namely, the Wechsler Adult Intelligence Scale (WAIS; Wechsler, 1981).

**4.2.3.3) Satisfaction With Life Scale (SWLS; Diener et al., 1985)** (See Appendix E for the English version, Appendix F for the Afrikaans version).

The Satisfaction With Life Scale (SWLS) was used to measure global life satisfaction of the participants in this study. The scale consists of five items (which are global rather than specific in nature), each of which are statements regarding satisfaction with life (e.g. In most ways my life is close to my ideal). The participant is instructed to agree or disagree with the statement by using a 1-7 Likert-type scale, with the following anchor points: 1 (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (neither agree nor disagree), 5 (slightly agree), 6 (agree), and 7 (strongly agree). In terms of scoring, if an individual scores 20 on this scale, they are equally satisfied and dissatisfied, in other words, a score of 20 indicates the neutral point of the scale. If the participant scores between 21 and 25, it means that he or she is *slightly satisfied*, similarly if the participant scores between 15 and 19, it means that he or she is *slightly dissatisfied* with life. A score between 26 and 30 means that the participant is

*satisfied*, between 10 and 14 means he or she is *dissatisfied*, between 5 and 9 the participant is *extremely dissatisfied* with life, and between 31 and 35 he or she is *extremely satisfied*.

The SWLS has been examined for both reliability and sensitivity. Although the scale has a high internal reliability, the temporal validity is moderate, owing to the fact that life satisfaction can potentially change in response to life events (Pavot & Diener, 1993). Diener et al. (1985) reported a coefficient alpha of .87 for the scale and a 2-month test-retest stability coefficient of .82. More recent review of the scale found coefficient alpha to be .79 (Vassar, 2008). Additionally, the SWLS shows sufficient convergence with related measures, including measures that adopt alternative methodologies to measuring life satisfaction (Pavot & Diener, 1993).

**4.2.3.4) Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998)** (See Appendix G for the English version, Appendix H for the Afrikaans version).

The TSWLS was developed from the original SWLS. In order to give the scale a temporal dimension, five parallel items that focus on the past were constructed, such as “I am satisfied with my life in the past”. The same idea was applied to future orientations of life satisfaction, where five parallel items such as “I will be satisfied with my life in the future” were constructed. When it came to the present orientation of life satisfaction, the original five items were slightly adjusted to ensure that these items were clearly distinguishable from the past and future items, for example, the item “I am satisfied with my life” was modified to read “I am satisfied with my current life”. Thus the TSWLS is a 15-item scale, including five items each relating to the past, present and future orientation. The Likert-type response from the original scale was retained, with a range from 1 (strongly disagree) to 7 (strongly agree). Total scores on this scale could potentially range from 15 to 105. Additionally, this scale allows measurements of each temporal dimension separately. Each subscale would have a

potential response range of 5 to 35, and the means of the subscales are statistically comparable.

The three time dimensions in the TSWLS correlated positively with the original SWLS, with correlation coefficients of .72, .92 and .59 for the past, present and future scales respectively, indicating that the original SWLS is most closely assessing present satisfaction. The TSWLS has a high level of both internal and temporal consistency, and shows good convergent validity with other well-being measures (Pavot et al., 1998). Additionally, there is significant variance among the time frames, suggesting that respondents discriminate between their past, present and future levels of life satisfaction.

**4.2.3.5) *The Gratitude Questionnaire-Six Item Form (GQ-6; McCullough et al., 2002)*** (see Appendix I for the English version, Appendix J for the Afrikaans version).

The GQ-6 is a 6-item questionnaire designed to measure the experience of gratitude in everyday life, for example, item 1: “I have so much in life to be thankful for”. This scale adopts a Likert-type rating scale, with a range from 1 (strongly disagree) to 7 (strongly agree). Items 3 (“When I look at the world, I don’t see much to be grateful for”) and 6 (“Long amounts of time can go by before I feel grateful to something of someone”) are reverse score items. This scale has a good internal reliability, with alphas between .82 and .87. The scores on the GQ-6 have been found to have significant correlations with other measures hypothesised to measure the experience of gratitude in everyday life, and there is evidence that GQ-6 relates to other positive traits such as life satisfaction, hope, spirituality and religiousness, forgiveness, empathy and prosocial behavior, and is negatively related to depression, anxiety, materialism and envy (McCullough et al., 2002).

**4.2.3.6) *The Health Satisfaction Question (HSQ; Chatters, 1988; Coyle et al., 1994; Gwozdoz & Sousa-Poza, 2009)***.

The single-item measure assessing satisfaction with health (HSQ) is worded in the following manner: “In general, how satisfied are you with your health? Would you say you

are *very satisfied* (4), *somewhat satisfied* (3), *somewhat dissatisfied* (2), or *very dissatisfied* (1)? Measuring satisfaction with health makes use of one question only, as the one question is adequate in measuring subjective, overall satisfaction. This method of measuring health satisfaction is replicated from studies conducted in the last three decades that measured health satisfaction (Chatters, 1988; Coyle et al., 1994; Gwozdoz & Sousa-Poza, 2009).

### **4.3) Procedure**

The Satisfaction With Life Scale and the Gratitude Questionnaire-Six Item Form were in the public domain and thus permission to utilise these questionnaires in the present study was not necessary. The Temporal Satisfaction With Life Scale was under copyright, and permission was obtained from William Pavot to use the scale in the present study (See Appendix K).

In order for the late adulthood individuals living in retirement villages to take part in the present study, permission needed to be attained from the manager of each retirement village. A total of 19 retirement villages were contacted telephonically, whereby the nature and procedures of the study was explained. Of the 19 retirement villages, 6 did not have a significant amount of residents under between the ages of 60-75 years, and 3 did not get permission from the trustees. Nine retirement villages gave permission for research to be conducted with the residents on the premises. The researcher then arranged a meeting with each manager in order to give opportunities for any questions, get a signed consent form, and obtain a list of the residents in their retirement village. Residents were then selected from the list according to the age specifications required for the study (aged between 60-75 years), and the manager was asked to give information on whether any of the potential participants had any known pre-existing cognitive dysfunction. The selected participants were then asked by the manager if they were willing to participate in the study, after which individual 30 minute meetings with the researcher were arranged either at each individual participant's place of residence, or in a private room at the respective retirement village.

After all the arranged meetings with each participant at all the consented retirement villages were complete, a total of 15 females' and 8 males' data sets met the requirements of the study due to the fact that many of the residents did not meet the education specifications (at least a matric qualification). Due to saturation of retirement villages within the Hottentots Holland area, as well as time constraints, the researcher thus decided to proceed by means of snowball sampling, whereby individuals in late adulthood were contacted telephonically. During the telephonic conversation, a brief explanation of the study was given, and the individual was asked whether or not they would be willing to participate. If verbal consent was given, a private 30 minute meeting between the participant and the researcher was arranged at the participant's place of residence.

During the arranged meeting with retirement village and independent participants, the nature and purpose of the study was explained again, and the participant was given the opportunity to ask any questions, as well as decide whether or not they would like to take part. Consent was given by means of an informed consent form for individuals living in retirement villages (see Appendix L for English version, Appendix M for Afrikaans version), and individuals living independently (see Appendix N for English version, and Appendix O for Afrikaans version). This was followed by the administration of the MMSE, and the completion of the BQ, SWLS, TSWLS and the HSQ, which were completed in one sitting under the supervision of the researcher. Of the 60 participants that were selected to take part in the study, no cognitive dysfunction was detected by the MMSE.

The results of the MMSE were not made available to the participant, instead permission was asked to write a report to their home doctor who may have decided to ask for further professional/medical investigations. The report would have been written by a clinical psychologist, who would also have explained the nature of it with the home doctor telephonically. If the results of the MMSE detected cognitive dysfunction in the individual, then the data collected from the questionnaires answered by that individual would not have

been used in the study. Due to the fact that cognitive dysfunction was not detected in any of the participants, no reports from the clinical psychologist were required.

The participants in early adulthood were selected by the researcher from third year and honours psychology classes, a fourth year Forestry class, as well as from a class of Engineering masters students at Stellenbosch University. The researcher asked permission from the respective lecturers if they would be willing to allow time before/after their class for a brief introduction to the study, during which the researcher asked students over 24 years of age to remain after the class if they were prepared to participate. The nature and purpose of the study was then articulated to the remaining students in more detail. The students, all of whom were given an informed consent form to sign (see Appendix P for English version, Appendix Q for Afrikaans version), were asked to collect the questionnaires from the researcher, namely the BQ, SWLS, TSWLS, GQ-6 and the HSQ, at the front of the classroom/lecture hall, fill out the questionnaires in the classroom/lecture hall, and hand them back to the researcher when they had completed.

#### **4.4) Data analysis**

The calculation of the quantitative results in this study was done by means of a statistical software program called SPSS. One-way ANOVAs were calculated to analyse the differences between early and late adulthood regarding the following SWB variables: global life satisfaction, the temporal dimensions of life satisfaction (past, present and future), gratitude and health satisfaction. In order to investigate the temporal dimensions of life satisfaction for each age group, paired sample t-tests were calculated using the scores from the TSWLS, due to the fact that significant differences between three groups were investigated. The interrelationships between SWB variables were calculated by means of Pearson correlations, for each group separately and for the two groups combined. All tests of significance were conducted on the 1% and 5% levels.

The secondary aims of the present study were investigated by means of posthoc Bonferroni comparisons (when significant differences between more than two groups were investigated) and one-way ANOVAs (when significant differences between two groups were investigated).

#### **4.5) Ethical considerations**

An application for ethical clearance of this research project was made to the University of Stellenbosch Research Ethics Committee: Human Research (Non-health). The Informed Consent Forms for both groups as well as all the questionnaires were translated to English and Afrikaans to ensure that participants could answer the questions in the language with which they were most comfortable. Ethical approval was granted in July 2011 (see Appendix R). The researcher and managers of retirement villages made all the appointments with the participants in late adulthood to ensure privacy and confidentiality. All participants in this study were informed of the nature and purpose of the study and were asked to fill out the Informed Consent Form. They were also informed that all information gathered on the questionnaires will be kept confidential. Participants were given the option of filling out the questionnaires in their preferred language, and were informed that they could withdraw from the study at any time for any reason. Consent and assent from the managers of the respective retirement villages were obtained by means of an application of approval, which were provided in English (see Appendix S) and Afrikaans (see Appendix T).

As stated in the Informed Consent Form, participants had the option of contacting the clinical psychologist assigned to the present study should they feel they need it, although this option was not used.

#### **4.6) Conclusion**

The primary aims of the present study were to determine whether individuals in early and late adulthood differ significantly regarding global life satisfaction, the temporal dimensions (past, present and future) of life satisfaction, gratitude and health satisfaction; as

well as whether the relationships between these variables differ significantly among these age groups. On completion of data collection, 60 male and 60 female participants in both early and late adulthood were selected for participation. All participants were white South Africans, and had at least passed a matriculation examination (or an exemption examination). Participants in the late adulthood group did not have any cognitive dysfunction detected by the MMSE. Ethical procedures were strictly adhered to in data collection. The results of the data analysis are presented in Chapter 5.

## CHAPTER FIVE

### Results

#### 5.1) Introduction

This chapter investigates the potential differences between individuals in early and late adulthood regarding the following subjective well-being variables: global life satisfaction, the temporal dimensions of life satisfaction (past present and future), gratitude and health satisfaction. Additionally, the relationships between these variables are explored. The secondary aims of the study were to investigate whether global life satisfaction differs with regard to gender, length of retirement, type of residence and marital status. The descriptive statistics are presented, followed by the presentation of the one-way ANOVA's, paired samples t-tests, Bonferroni posthoc comparisons and the results of the Pearson correlations between variables.

#### 5.2) Descriptive statistics

The means and standard deviations for global life satisfaction, the temporal dimensions of life satisfaction (past, present and future), gratitude and health satisfaction for each the early and late adulthood groups and the combined groups are presented in Table 4.

Table 4

*Means and Standard Deviations for Early Adulthood, Late Adulthood and Combined Groups Regarding Measures of Subjective Well-Being (SWB) (N = 120)*

Measure	<i>M</i>	<i>SD</i>
Early adulthood group (n = 60)		
SWLS	26.40	4.68
TSWLS (Past)	24.03	5.38
TSWLS (Present)	26.47	5.15
TSWLS (Future)	26.75	4.70
GQ-6	37.03	4.40
HSQ	3.20	.71
Late adulthood group (n = 60)		
SWLS	28.48	4.45
TSWLS (Past)	25.82	5.86
TSWLS (Present)	27.37	6.08
TSWLS (Future)	26.30	5.01
GQ-6	37.42	3.61
HSQ <sup>a</sup>	3.48	.70
Combined group (N = 120)		
SWLS	27.44	4.67
TSWLS (Past)	24.93	5.68
TSWLS (Present)	26.92	5.63

*Table 4 (continued)*

Measure	<i>M</i>	<i>SD</i>
TSWLS (Future)	26.53	4.84
GQ-6	37.23	4.01
HSQ <sup>b</sup>	3.34	0.72

*Note.* SWLS = Satisfaction With Life Scale; TSWLS (Past) = Temporal Satisfaction With Life Scale (Past); TSWLS (Present) = Temporal Satisfaction With Life Scale (Present); TSWLS (Future) = Temporal Satisfaction With Life Scale (Future); GQ-6 = Gratitude Questionnaire-Six Item Form; HSQ = Health Satisfaction Question.

<sup>a</sup> One female's score was omitted (therefore:  $n = 59$ ).

<sup>b</sup> One female's score was omitted (therefore:  $n = 119$ ).

### **5.3) Comparative statistics**

One-way ANOVAs and t-tests were conducted (testing Hypotheses 1-10) in order to investigate if there were significant differences between individuals in early and late adulthood regarding the following variables: global life satisfaction, temporal life satisfaction, gratitude and health satisfaction. Secondly, Pearson correlations were conducted (testing Hypotheses 11-13) to investigate the interrelationships between these SWB variables. Finally, the objective life conditions in the late adulthood group (namely, length of retirement, housing and marital status) with regard to global life satisfaction are analysed (testing Hypotheses 14-18) by means of one-way ANOVA.

#### **5.3.1) Global life satisfaction**

In order to test for Hypothesis 1, namely that there will be no significant differences between individuals in early and late adulthood regarding global life satisfaction (as measured by the

Satisfaction With Life Scale [SWLS; Diener et al., 1985]), a one-way ANOVA was conducted. The results are presented in Table 5.

Table 5

*One-Way Analysis of Variance for Global Life Satisfaction (N = 120)*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	130.21	130.21	6.242*	.014
Within Groups	118	2461.38	20.86		
Total	119	2591.59			

\* $p < .05$ . \*\* $p < .01$ .

The results indicate that there was a significant difference between young and late adults in global life satisfaction scores  $F(1, 118) = 6.242, p = .014$ . The late adulthood group ( $M = 28.48, SD = 4.45$ ) showed significantly more global life satisfaction than the young adulthood group ( $M = 26.40, SD = 4.68$ ).

### **5.3.2) Temporal life satisfaction**

In order to compare the two groups with regard to the temporal dimensions of life satisfaction, the following hypotheses were formulated: The participants in early adulthood will demonstrate significantly lower past life satisfaction, as measured by the Past subscale of the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998), compared to the participants in late adulthood (Hypothesis 2); There will be no significant difference between individuals in early and late adulthood regarding the present dimension of life satisfaction, as measured by the Present subscale of the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998) (Hypothesis 3); The participants in early adulthood will demonstrate significantly higher future life satisfaction, as measured by the Future subscale of the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998), compared to the

participants in late adulthood (Hypothesis 4). To test Hypotheses 1, 2, 3 and 4, one-way ANOVAs were conducted. The results are presented in Table 6.

Table 6

*One-Way Analysis of Variance for Past, Present and Future Dimensions of Temporal Life Satisfaction for the Total Sample (N = 120)*

Variable and source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Past life satisfaction					
Between Groups	1	95.41	95.41	3.011	.085
Within Groups	118	3738.92	31.69		
Total	119	3834.33			
Present life satisfaction					
Between Groups	1	24.30	24.30	.766	.383
Within Groups	118	3744.87	31.74		
Total	119	3769.17			
Future life satisfaction					
Between Groups	1	6.08	6.08	.258	.613
Within Groups	118	2781.85	23.58		
Total	119	2787.93			

\* $p < .05$ . \*\* $p < .01$ .

When comparing individuals in late and early adulthood, the results indicated insignificant differences between groups regarding the past dimension of life satisfaction [ $F(1, 118) = 3.011, p = .085$ ], present life satisfaction [ $F(1, 118) = .766, p = .383$ ] or future life satisfaction [ $F(1, 118) = .258, p = .613$ ].

In order to compare the trajectories of past, present and future life satisfaction for the

early adulthood group, the following hypotheses were formulated: The participants in early adulthood will demonstrate significantly higher levels of future life satisfaction compared to their past and present life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998) (Hypothesis 5); The participants in early adulthood will demonstrate significantly higher levels of present life satisfaction compared to their past life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998) (Hypothesis 6); To test Hypotheses 5 and 6 paired samples t-tests were conducted. The results are presented in 7.

Table 7

*Paired Samples T-Tests for Temporal Dimensions of Life Satisfaction in Early Adulthood (n = 60)*

Differences between TSWLS dimensions	<i>MD</i>	<i>SD</i>	<i>SEM</i>	95% Confidence Interval of the Difference		<i>t</i>	<i>df</i>	<i>p</i>
				<i>Lower</i>	<i>Upper</i>			
TSWLS (Past) – TSWLS (Present)	-2.43	4.35	.56	-3.56	-1.31	-4.33**	59	.000
TSWLS (Present) – TSWLS (Future)	-.28	5.19	.67	-1.62	1.06	-.42	59	.674
TSWLS (Past) – TSWLS (Future)	-2.72	5.20	.67	-4.06	-1.37	-4.05**	59	.000

*Note.* TSWLS (Past) = Temporal Satisfaction With Life Scale (Past); TSWLS (Present) = Temporal Satisfaction With Life Scale (Present); TSWLS (Future) = Temporal Satisfaction With Life Scale (Future).

\* $p < .05$ . \*\* $p < .01$ .

When investigating the trajectories of life satisfaction within the early adulthood group, it was found that individuals in early adulthood considered their past life satisfaction ( $M = 24.03$ ,  $SD = 5.38$ ) to be significantly lower than their present life satisfaction ( $M = 26.47$ ,  $SD = 5.15$ ), where  $t(59) = -4.33$ ,  $p = .000$ , as well as their future life satisfaction ( $M = 26.75$ ,  $SD = 4.70$ ), where  $t(59) = -4.05$ ,  $p = .000$ . They did not, however, consider their present life satisfaction as significantly higher or lower than their future life satisfaction [ $t(59) = -0.42$ ,  $p = .674$ ].

In order to compare the trajectories of past, present and future life satisfaction for the late adulthood group, the following hypotheses were formulated: The participants in late adulthood will demonstrate significantly lower levels of future life satisfaction compared to their past and present life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998) (Hypothesis 7); The participants in late adulthood will demonstrate no significant difference between past and present life satisfaction, as measured by the Temporal Satisfaction With Life Scale (TSWLS; Pavot et al., 1998) (Hypothesis 8). To test Hypotheses 7 and 8 paired samples t-tests were conducted. The results are presented in Table 8.

Table 8

*Paired Samples T-Tests for Temporal Dimensions of Life Satisfaction in Late Adulthood (n = 60)*

Differences between TSWLS dimensions	<i>MD</i>	<i>SD</i>	<i>SEM</i>	95% Confidence Interval of the Difference		<i>t</i>	<i>df</i>	<i>p</i>
				<i>Lower</i>	<i>Upper</i>			
TSWLS (Past) – TSWLS (Present)	-1.55	5.62	.73	-3.00	-.10	-2.14*	59	.037
TSWLS (Present) – TSWLS (Future)	1.07	4.23	.55	-.025	2.16	1.96	59	.055
TSWLS (Past) – TSWLS (Future)	-.48	5.32	.69	-1.86	.89	-0.70	59	.484

*Note.* TSWLS (Past) = Temporal Satisfaction With Life Scale (Past); TSWLS (Present) = Temporal Satisfaction With Life Scale (Present); TSWLS (Future) = Temporal Satisfaction With Life Scale (Future).

\* $p < .05$ . \*\* $p < .01$ .

When investigating the trajectories of life satisfaction within the late adulthood group, it was found that individuals in this age group considered past life satisfaction ( $M = 25.82$ ,  $SD = 5.86$ ) to be significantly lower than present life satisfaction ( $M = 27.37$ ,  $SD = 6.08$ ), where  $t(59) = -2.14$ ,  $p = .037$ . They did not, however, consider future life satisfaction ( $M = 26.30$ ,  $SD = 5.01$ ) to be significantly more or less satisfying than the past [ $t(59) = -0.70$ ,  $p = .484$ ] or the present [ $t(59) = 1.96$ ,  $p = .055$ ].

### 5.3.3) Gratitude

In order to test Hypothesis 9, namely, that the participants in early adulthood will demonstrate significantly lower levels of dispositional gratitude, as measured by the Gratitude Questionnaire-Six Item Form (GQ-6; McCullough et al., 2002), compared to the participants in late adulthood, one-way ANOVA was conducted. The results are presented in Table 9.

Table 9

*One-Way Analysis of Variance for Gratitude (N=120)*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	4.41	4.41	.273	.603
Within Groups	118	1908.52	16.17		
Total	119	1912.93			

\* $p < .05$ . \*\* $p < .01$ .

There were no significant differences between the two groups with regard to gratitude, where  $F(1, 118) = .273$ ,  $p = .603$ .

**5.3.4) Health satisfaction**

In order to test Hypothesis 10, namely, that the participants in early adulthood will demonstrate significantly higher levels of satisfaction with health, as measured by the Health Satisfaction Question (HSQ; Chatters, 1988; Coyle et al., 1994; Gwozdoz & Sousa-Poza, 2009), compared to the participants in late adulthood, one-way ANOVA was conducted. The results are presented in Table 10.

Table 10

*One-way Analysis of Variance for Health Satisfaction (N=119)*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	2.24	2.24	4.500*	.036
Within Groups	117	58.31	.50		
Total	118	60.56			

\* $p < .05$ . \*\* $p < .01$

The results indicate that there was a significant difference between groups regarding health satisfaction, where  $F(1, 117) = 4.500$ ,  $p = .036$ . The late adulthood group ( $M = 3.47$ ,  $SD = .70$ ) showed significantly more health satisfaction than the early adulthood group ( $M = 3.20$ ,  $SD = .71$ ).

#### **5.4) Relationships between variables**

This section investigates whether there were significant relationships between global life satisfaction (as measured by the Satisfaction With Life Scale [SWLS; Diener et al., 1985]), the temporal dimensions of life satisfaction (as measured by the Temporal Satisfaction With Life Scale [TSWLS; Pavot, et al., 1998]), gratitude (as measured by the Gratitude Questionnaire-Six Item Form [GQ-6; McCullough et al., 2002]), and health satisfaction (as measured by the Health Satisfaction Question [HSQ; Chatters, 1988; Coyle et al., 1994; Gwozdoz & Sousa-Poza, 2009]). Pearson correlations were calculated for the late adulthood and early adulthood groups separately and combined in order to explore the significance of these relationships.

##### **5.4.1) Early adulthood**

In order to test Hypothesis 11, namely, that there will be significant intercorrelations between global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction for the early adulthood group, Pearson correlations were calculated. The results are presented in Table 11.

Table 11

*Intercorrelations for Measures of Subjective Well-Being (SWB) for the Early Adulthood**Group (n = 60)*

Measure	1	2	3	4	5	6
1. SWLS	-					
2. TSWLS (Past)	.63**	-				
3. TSWLS (Present)	.80**	.66**	-			
4. TSWLS (Future)	.38**	.48**	.45**	-		
5. GQ-6	.66**	.45**	.51**	.34**	-	
6. HSQ	.21	.03	.11	-.06	.36**	-

*Note.* SWLS = Satisfaction With Life Scale; TSWLS (Past) = Temporal Satisfaction With Life Scale (Past); TSWLS (Present) = Temporal Satisfaction With Life Scale (Present); TSWLS (Future) = Temporal Satisfaction With Life Scale (Future); GQ-6 = Gratitude Questionnaire-Six Item Form; HSQ = Health Satisfaction Question.

\* $p < .05$ . \*\* $p < .01$ .

For individuals in early adulthood, there was a significant positive correlation between global life satisfaction and gratitude. Positive correlations were also found between global life satisfaction and the temporal dimensions of life satisfaction, the highest correlation being between global life satisfaction and the present dimension of life satisfaction ( $r = .80$ ). Health satisfaction on the other hand, had a significant correlation with gratitude ( $r = .36$ ), but its correlation with global life satisfaction and the temporal dimensions of life satisfaction were all insignificant. In fact, the correlation between health satisfaction and the future dimension of life satisfaction, although not significant, showed a slightly negative relationship ( $r = -.06$ ). Gratitude correlated significantly with all SWB variables in early adulthood.

### 5.4.2) Late adulthood

In order to test Hypothesis 12, namely, that there will be significant intercorrelations between global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction for the late adulthood group, Pearson correlations were calculated. The results are presented in Table 12.

Table 12

*Intercorrelations for Measures of Subjective Well-Being (SWB) for the Late Adulthood Group (n = 60)*

Measure	1	2	3	4	5	6
1. SWLS	-					
2. TSWLS (Past)	.68**	-				
3. TSWLS (Present)	.76**	.56**	-			
4. TSWLS (Future)	.62**	.53**	.73**	-		
5. GQ-6	.32*	.26*	.31*	.25	-	
6. HSQ	.25	.22	.14	.09	.10	-

*Note.* SWLS = Satisfaction With Life Scale; TSWLS (Past) = Temporal Satisfaction With Life Scale (Past); TSWLS (Present) = Temporal Satisfaction With Life Scale (Present); TSWLS (Future) = Temporal Satisfaction With Life Scale (Future); GQ-6 = Gratitude Questionnaire-Six Item Form; HSQ = Health Satisfaction Question.

\* $p < .05$ . \*\* $p < .01$ .

For individuals in late adulthood, there were significant positive correlations between global life satisfaction and the temporal dimensions of life satisfaction, the strongest positive relationship being between global life satisfaction and the present dimension of life satisfaction ( $r = .76$ ). Gratitude on the other hand, had significant positive correlations with

global life satisfaction ( $r = .32$ ), the past dimension of life satisfaction ( $r = .26$ ), and present dimension of life satisfaction ( $r = .31$ ). It did not however correlate significantly with either the future dimension of life satisfaction ( $r = .25$ ) or health satisfaction ( $r = .10$ ). In fact, health satisfaction did not correlate significantly with any of the other variables in this age group.

### 5.4.3) Interrelationships for both groups combined

In order to test Hypothesis 13, namely, that there will be significant intercorrelations between global life satisfaction, the temporal dimensions of life satisfaction, gratitude and health satisfaction for the early and late adulthood group combined, Pearson correlations were calculated. The results are presented in Table 13.

Table 13

*Intercorrelations for Measures of Subjective Well-Being (SWB) for Both Groups Combined*  
( $N = 120$ )

Measure	1	2	3	4	5	6
1. SWLS	-					
2. TSWLS (past)	.67**	-				
3. TSWLS (present)	.77**	.61**	-			
4. TSWLS (future)	.48**	.49**	.60**	-		
5. GQ-6	.50**	.36**	.40**	.29**	-	
6. HSQ	.27**	.16	.14	.01	.25**	-

*Note.* SWLS = Satisfaction With Life Scale; TSWLS (Past) = Temporal Satisfaction With Life Scale (Past); TSWLS (Present) = Temporal Satisfaction With Life Scale (Present); TSWLS (Future) = Temporal Satisfaction With Life Scale (Future); GQ-6 = Gratitude Questionnaire-Six Item Form; HSQ = Health Satisfaction Question.

\* $p < .05$ . \*\* $p < .01$

The correlations between global life satisfaction, the temporal dimensions of life satisfaction (past, present and future), and gratitude were all significant positive correlations on the 1% level. Health satisfaction on the other hand, only had significant positive correlations with global life Satisfaction ( $r = .27$ ) and gratitude ( $r = .25$ ).

### **5.5) Sociodemographic variables and global life satisfaction**

In order to analyse whether there was a significant difference in global life satisfaction with regard to sociodemographic variables in late adulthood, one-way ANOVAs and Bonferroni posthoc comparisons were calculated. The sociodemographic variables investigated in the present study were: gender, length of retirement (retired less than 10 years, retired more than 10 years, and not retired), type of residence (retirement village or independent), married/not married, and length of widowhood (widowed less than 10 years, widowed more than 10 years, and not widowed).

#### **5.5.1) Gender and global life satisfaction**

In order to test Hypothesis 14, namely that there will be no significant difference between males and females with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985), one-way ANOVA was calculated. The results are presented in Table 14.

Table 14

*One-Way Analysis of Variance for Gender Differences in Late Adulthood With Regard to Global Life Satisfaction (n = 60)*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	.02	.02	.001	.977
Within Groups	58	1168.97	20.16		
Total	59	1168.98			

\* $p < .05$ . \*\* $p < .01$ .

The results indicate that there was no significant difference between males and females in late adulthood with regard to global life satisfaction, where  $F(1, 58) = .001$ ,  $p = .977$ .

### **5.5.2) Length of retirement and global life satisfaction**

In order to test Hypothesis 15 namely, that there will be no significant differences between individuals retired for less than 10 years, more than 10 years, and not retired individuals with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985), Bonferroni posthoc comparisons were calculated. There was only one case of an individual that never worked; therefore it was deleted from this particular analysis. The results are presented in Table 15.

Table 15

*Bonferroni Posthoc Comparisons for Length of Retirement With Regard to Global Life Satisfaction (N = 59)*

Comparisons	<i>MD</i>	<i>SEM</i>	<i>p</i>	95% Confidence Interval	
				Lower Bound	Lower Bound
Not retired - Retired < 10 years	-.66	1.62	1.000	-4.64	3.34
Retired < 10 years - Retired > 10 years	1.64	1.32	.656	-1.61	4.89
Not retired - Retired > 10 years	-.99	1.58	1.000	-4.89	2.92

*Note.* Range of years retired = 3 - 23 years.

\**p* < .05. \*\**p* < .01.

Results of the Bonferroni posthoc comparisons all converged to show that there were no significant differences between being retired for more than 10 years, less than 10 years, and not being retired with regard to global life satisfaction.

### **5.5.3) Type of residence and global life satisfaction**

In order to test Hypothesis 16, namely, that there will be no significant difference between individuals living in a retirement village and individuals living independently with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985), one-way ANOVA was calculated. The results are presented in Table 16.

Table 16

*One-Way Analysis of Variance for the Differences in Type of Residence in Late Adulthood With Regard to Global Life Satisfaction (n = 60)*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	58.05	58.05	3.031	.087
Within Groups	58	1110.93	19.15		
Total	59	1168.98			

\* $p < .05$ . \*\* $p < .01$ .

The results indicate that there was no significant difference between individuals in late adulthood living in a retirement village compared to those living independently with regard to global life satisfaction, where  $F(1, 58) = 3.031$ ,  $p = .087$ .

#### **5.5.4) Being married/not married and global life satisfaction**

In order to test Hypothesis 17, namely that married participants will demonstrate significantly higher levels of global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985), compared to participants who are not married, one-way ANOVA was calculated. The results are presented in Table 17.

Table 17

*One-Way Analysis of Variance for the Differences Between Married and Not Married Individuals in Late Adulthood With Regard to Global Life Satisfaction (n = 60)*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	1	182.01	182.01	**10.696	.002
Within Groups	58	986.98	17.02		
Total	59	1168.98			

\* $p < .05$ . \*\* $p < .01$ .

The results indicate that there was a significant difference between individuals in late adulthood that are married compared to those who are not married with regard to global life satisfaction, where  $F(1, 58) = 10.696$ ,  $p = .002$ . Global life satisfaction was significantly higher for married individuals ( $M = 29.49$ ,  $SD = 3.68$ ) compared to not married individuals ( $M = 25.47$ ,  $SD = 5.28$ ).

#### **5.5.5) Length of widowhood and global life satisfaction**

In order to test Hypothesis 18, namely that there will be no significant differences between individuals widowed for less than 10 years, more than 10 years, and not widowed individuals with regard to global life satisfaction, as measured by the Satisfaction With Life Scale (SWLS; Diener et al., 1985), Bonferroni posthoc comparisons were calculated. The results are presented in Table 18.

Table 18

*Bonferroni Posthoc Comparisons for Length of Widowhood With Regard to Global Life Satisfaction (N = 60)*

Comparisons	<i>MD</i>	<i>SEM</i>	<i>p</i>	95% Confidence Interval	
				Lower Bound	Lower Bound
Not widowed - Widowed < 10 years	.10	1.93	1.000	-4.65	4.86
Widowed < 10 years - Widowed > 10 years	2.67	2.57	.910	-3.67	9.00
Not widowed - Widowed > 10 years	2.77	1.93	.467	-1.98	7.52

*Note.* Range of years widowed: 4 – 40 years.

\* $p < .05$ . \*\* $p < .01$ .

Results of the Bonferroni posthoc comparisons all converged to show that there were no significant differences between being widowed for more than 10 years, less than 10 years, and not being widowed with regard to global life satisfaction.

## 5.6) Conclusion

After analysing the data, significant differences were found between early and late adults regarding global life satisfaction and health satisfaction, with older adults reporting higher scores than young adults in both cases. Overall, length of retirement, type of residence and length of widowhood did not influence life satisfaction. Married individuals on the other hand, reported higher levels of life satisfaction when compared to individuals who were not married. The results are discussed in Chapter Six.

## CHAPTER SIX

### Discussion and Conclusion

#### 6.1) Introduction

The aim of this study was to identify whether there were any significant differences between individuals in early and late adulthood regarding global life satisfaction, the temporal dimensions of life Satisfaction (past, present and future), gratitude and health satisfaction. The results of the quantitative analysis will be discussed in this chapter, followed by a discussion of the limitations and recommendations of the study.

#### 6.2) Discussion

The results of this study indicated that there was a significant difference in the experience of global life satisfaction between individuals in early and late adulthood in South Africa. In fact, the results suggest that individuals in late adulthood experience higher global life satisfaction when compared to their younger counterparts. These results are in accordance with results from previous literature, where past research has suggested that life satisfaction does not decrease with age (Diener & Suh, 1998; Kunzmann et al., 2000; Lucas & Gohm, 2000; Mroczek & Kolarz, 1998; Mrozek & Spiro, 2005; Pinquart, 2001). Moreover, some literature suggests that older adults tend to experience higher levels of life satisfaction than adults in young adulthood (Diener & Suh, 1998, Prenda & Lachman, 2001). Theories on global life satisfaction and its relation to age explain that changing goals facilitate adaption to deteriorating conditions associated with aging. For instance, Carstensen's (1995) socioemotional selectivity theory posits that individuals in late adulthood are more aware of their impending mortality and are more focused on making the time they have left more enjoyable. They thus experience an increase in their life satisfaction due to the fact that they place greater emphasis on emotional goals such as the formation of meaningful relationships. Moreover, older adults experience a readjustment of their goals (e.g. Campbell et al., 1976;

Rapkin & Fischer, 1992) through a shift from assimilative to a more accommodative coping strategy (Brandtstadter & Renner, 1990), which could theoretically increase their life satisfaction. Finally, Ryff's (1991) description of goal readjustments, where individuals in late adulthood have a closer fit between their real and ideal self perceptions as they age, gives another possible explanation for the increase in life satisfaction with age. Older adults do not experience a decline in life satisfaction due to the fact that their goal changes assist them in coping with adverse circumstances associated with aging.

When comparing the temporal dimensions of life satisfaction scores between late and early adulthood, no significant differences were found. However, when investigating the trajectories of life satisfaction, differences between groups were uncovered. Individuals in late adulthood perceived their past life satisfaction to be significantly less satisfying than their present life satisfaction (see Table 8). This contradicts the literature, in that it has been found that older adults tend to recall more positive than negative experiences, thus making them perceive the past as better than or similar to the present (Charles et al., 2003; Lachman et al., 2008). This deviation from findings reported in the literature could be explained by the fact that the sample consisted of South African older adults. The nature of South Africa's past political climate could in fact make older adults perceive the past as less satisfying, due to the massive inequality and unrest in South Africa during Apartheid.

The trajectories of life satisfaction for individuals in early adulthood followed a similar pattern to that of individuals in late adulthood, but also with some important differences. Similar to the late adult group, young adults regarded their present to be significantly more satisfying than the past (see Table 8). An interesting finding within the early adulthood age group was the significant difference between past and future life satisfaction. These significant differences effectively mean that young adults perceive their present and future to be significantly more satisfying than the past. The evaluation of future

life satisfaction relies solely on anticipated change: young adults have a primary focus on continued identity formation and growth, indicating that this age group tends to have a more future orientated life satisfaction due to the fact that they want to see self improvement over time (Baltes et al., 2006; Freund, 2006; Lachman, 2004).

The present study's investigation of the differences between young and late adults with regard to gratitude as an affective component of SWB did not yield significant results (see Table 9). This is consistent with past literature (e.g. Linely et al., 2007), in that aging apparently does not play a significant role in the experience of gratitude. Some research suggests that gratitude is higher in individuals in late adulthood (Kashdan et al., 2009), and that there is a marked improvement in emotional experience in late adulthood (Carstensen et al., 2011). Although the present study did not find gratitude to be significantly higher in individuals in late adulthood, it did highlight the fact that gratitude does not decrease. Overall, there has been very little research that confirms a decrease in the positive affective component of SWB with age (Wood et al., 2008). Carstensen's (1995) socioemotional selectivity theory may help to explain why the positive affective component of gratitude does not decrease, and in some cases increases, with age. Older adults have been found to have more frequent positive reactions to life events (Carstensen et al., 1999), as well as invest more time in emotionally meaningful relationships (Carstensen et al., 1997), thus creating a more potent tendency for a grateful disposition regardless of age-related changes associated with this age group.

The subjective evaluation of health satisfaction has revealed significant age differences (see Table 10); some studies reported health satisfaction to be significantly lower in late compared to early adulthood (Campbell et al., 1976; Coyle et al., 1994; Deaton, 2010; Diener et al., 1999; Gwozdoz & Sousa-Poza, 2009; Lichtenberg & Telmet, 2003; Svedberg, 2006), while others suggested that older adults have higher health satisfaction compared to their younger counterparts (Ferraro, 1980; Idler, 1993). In the present study, there was a

significant difference regarding health satisfaction for the two groups, with individuals in late adulthood reporting higher health satisfaction than younger adults. Psychological theories on development through the lifespan shed some light on this counterintuitive result, in that it has been theorised (Heckhausen & Schulz, 1998; Sneed & Whitbourne, 2003) that individuals in late adulthood tend to adapt to the age-related changes by identifying with younger ages. They thus compensate for the negative aging implications by feeling young. Additionally, older adults evaluate their reality and cope with negative life events through descending comparison (Eriksson et al., 2000; Wills, 1997). In other words, older adults have the tendency to compare themselves to others that they believe to be in a worse off condition in an attempt to improve their subjective experience of well-being (Bunk et al., 1997), consequently overestimating their health in relation to others (Eriksson et al., 2000). Another possible explanation is that older adults compare their health satisfaction with earlier periods in their own lives (Idler, 1993), thus contributing to their unusually favourable health satisfaction ratings.

When investigating the relationships between the SWB variables in this study, multiple positive correlations were uncovered. Pearson correlations revealed that there are significant relationships between global life satisfaction, the temporal dimensions of life satisfaction (past, present and future), and gratitude for both the early (see Table 11) and late adulthood groups (see Table 12), as well as for the combined group (see Table 13). Consistent with previous research (Pavot et al., 1998) the results of the present study found significant relationships between global life satisfaction and the past, present and future dimensions of life satisfaction, the highest correlation being between global life satisfaction and the present dimension of life satisfaction. The relationship between global life satisfaction and gratitude is especially relevant. Past literature has made bold statements alluding to the importance of gratitude in the experience of life satisfaction (Emmons & McCullough, 2003; Froh et al., 2008; Froh et al., 2009; McCullough et al., 2004; Park et al., 2004; Wood et al., 2008). The

present study found gratitude to be significantly related to global life satisfaction, for the young adults, late adults and both groups combined. These results indicate that gratitude has a significant role to play in a person's overall life satisfaction. Fredrickson's (1998; 2001) broaden-and-build theory of positive emotions sheds light on this positive relationship, in that individuals with high dispositional gratitude experience higher life satisfaction due to the fact that gratitude builds prosocial behaviour, social bonds and friendships, social resources, and social communities; and life satisfaction has been found to be significantly related to these enduring resources (Aquino et al., 1996; Diener & Fujita, 1995; Martin & Huebner, 2007).

The investigation of the relationships between gratitude and the temporal dimensions of life satisfaction uncovered some interesting results. Although gratitude was found to have a significant relationship with past and present life satisfaction for older adults, it did not have a significant relationship with the future life satisfaction dimension. Park et al. (2004) described gratitude to be more related to past life satisfaction. Proyer et al. (2011) on the other hand, found gratitude to be more related to present and future dimensions of life satisfaction, contrary to the hypothesis that gratitude should be related to past life satisfaction. In the present study, gratitude robustly correlated with past, present *and future* dimensions for individuals in early adulthood. The discrepancy between the two age groups with regard to future life satisfaction and gratitude could be explained by the fact that younger adults place more value and emphasis on the future, in that they have a more idealised perception on how their lives in the future will turn out to be (Robinson & Ryff, 1999). This idealised view indicates that younger adults who have a high dispositional gratitude expect the future to be satisfying, whereas the acute awareness of impending mortality coupled with a focus on the 'here and now' in late adulthood (Charles et al., 2003; Lachman et al., 2008) explains the insignificant relationship between future life satisfaction and gratitude in this age group.

No statistically significant relationships were found for the late adulthood group between health satisfaction and the other SWB variables investigated in this study. Although

there was a significant positive relationship for both groups combined, this finding within the late adulthood group contradicts the literature that has found health satisfaction and life satisfaction to have a positive relationship in old age (Al-Windi, 2005; Fernandez-Ballesteros, Zamarron, & Ruiz, 2001; Kim, 1998; Krause, 1990; Lee & Shinkai, 2003; Lindgren et al., 1994; Lohr et al., 1988; McCamish-Svensson et al., 1999; Simons et al., 1992; Yoo, 1997), the same of which applies to the relationship between gratitude and health satisfaction (McCullough et al, 2002).

The results illustrate that health satisfaction for South African older adults does not contribute significantly to their assessment of life satisfaction or gratitude, in other words, satisfaction with health assessments seem to be completely independent from global life satisfaction, the temporal dimensions of life satisfaction and gratitude. A possible explanation for this is that older adults could theoretically have a tendency to separate their assessments of health satisfaction when considering other aspects of their lives. Health conditions are known to deteriorate in old age; hence individuals in this age group expect as well as come to terms with these inevitable changes. Given sufficient time, these individuals may adapt to poor physical health and integrate it into their daily functioning (Liang et al., 2005), and thus tend to downplay the importance of health when evaluating components of their SWB such as global life satisfaction (Diener et al., 1999). Older adults will thus compartmentalise health satisfaction when evaluating other facets such as life satisfaction and gratitude.

Contrary to the late adulthood group, the component of gratitude did have a significant positive relationship with health satisfaction in early adulthood. This could be explained by the fact that health deterioration within this age group is not the norm, thus healthy young adults will be grateful for the fact that they are normal, healthy individuals consistent with other members of their age group. This indicates that health satisfaction appears to be far more interrelated with their overall psychological functioning when compared to their older counterparts.

In accordance with past literature, sociodemographic conditions do not have a significant impact on a person's global life satisfaction (Diener et al., 1999, Hertzog & Rogers, 1981; Horley & Lavery, 1995; Larson, 1978; Stock et al., 1983). In this study, gender, length of retirement, type of residence and length of widowhood apparently did not significantly influence the subjective experience of global life satisfaction scores in late adulthood. The insignificant difference between males and females with regard to global life satisfaction is in accordance with past literature, both international (Fugl-Meyer et al., 2002; Lang & Heckhausen, 2001; Prenda & Lachman, 2001) and South African (Westaway et al., 2007). With regard to retirement, there were no significant differences in being retired for less than 10 years, more than 10 years, and not being retired. It is important to note that none of the participants in late adulthood had been retired for less than three years; therefore they had had sufficient time to adjust to this life event (Heybroek, 2011). The present study also found that there was no difference between living in a retirement village and living independently with regard to global life satisfaction in late adulthood, a finding that was also reported by Brajković et al. (2011).

Married individuals in the present study reported higher levels of life satisfaction when compared to those who were not married, a finding that is in agreement with past literature (Glenn, 1975; Lee et al., 1991; Mroczek & Spiro, 2005). Selection hypothesis explains that married individuals could theoretically display higher life satisfaction due to the fact that they have psychological characteristics that make them more successful in finding a spouse as a result of their pleasant and outgoing traits (Mastekaasa, 1992). This theory gives an indication that it is not the act of marriage that boosts life satisfaction, but rather the predisposition for a married individual to have high levels of set point life satisfaction. Therefore, it cannot be assumed that being married increases life satisfaction. Although there have been studies that have found marriage to boost life satisfaction, it was reported to only

occur in the beginning of a marriage, or when the married individuals are young (Easterlin, 2003; Lucas et al., 2003).

Individuals in the present study that were widowed for less than 10 years, more than 10 years and not widowed did not differ with regard to their global life satisfaction. It has been found that most widows rate their lives as satisfying (George & Clipp, 1991), and that older adults have had more time to become accustomed to as well as accept widowhood as an expected and normative change within their developmental stage (Lelkes, 2008). Additionally, the crisis model (Caplan, 1964) explains that widowed individuals have the ability to return to their set point life satisfaction after a period of adjustment. There were no recent widows or widowers that participated in the present study, therefore they theoretically had sufficient time to cope with and adjust to this major life event.

The insignificant differences between sociodemographic groups in the present study suggests that individuals in late adulthood return to their baseline levels of life satisfaction through adaptive and coping mechanisms, even when they are faced with significant age related changes such as retirement, moving into a retirement village, and losing a spouse. Although life satisfaction was found to be higher in married compared to unmarried individuals, it is not necessarily the act of marriage, but rather the predisposition to high levels of life satisfaction that caused the difference.

### **6.3) Limitations and recommendations**

The objective of this study was to examine positive psychological variables of SWB across two developmental stages, namely, early and late adulthood. However, components of SWB such as life satisfaction (both global and temporal), gratitude and health satisfaction operate over the course of an individual's life and should thus not only be measured at a single point in time (as was the case with the present study). It will be meaningful to adopt a longitudinal or experimental design in order to allow for a better understanding of the "causal network leading to SWB" (Diener et al., 1999, p. 295). Using these methodologies in future

research will allow for practitioners, social researchers and gerontologists to determine specific needs of older individuals and create programs and interventions that will greatly improve their quality of life.

A further limitation in the present study was the use of convenience and snowball sampling. Retirement villages were initially used to gather the late adulthood participants, but of the 112 individuals that consented to take part, only 23 participants had at least a matric qualification. It was then decided to make use of snowball sampling to collect the rest of the data. Additionally, there is a possibility that the type of person that agreed to take part in the study was not representative of the population. Ideally, random probability sampling should be adopted in order to get a completely representative sample that more accurately reflects the entire population.

Some couples chose to complete the questionnaires at the same time and place, which could potentially influence the participant to respond to the questions in a socially desirable way. Due to the personal nature of the questionnaires, future research should ensure total privacy when administering the measures. In the case of the Gratitude Questionnaire-Six Item Form (GQ-6), the use of the reverse scoring items could have been problematic as some participants (on closer inspection) tended to contradict themselves. Additionally, the format of the questionnaires created some confusion within the late adulthood sample. The format of the Satisfaction With Life Scale (SWLS), the Temporal Satisfaction With Life Scale (TSWLS) and the Gratitude Questionnaire-Six Item Form (GQ-6) asked participants to respond to the questions by writing a number (1 – strongly disagree to 7 – strongly agree), which caused some confusion, and in some cases frustration, especially in the late adulthood group. Although this Likert type scale has been successfully used in many studies, it is recommended that this method be revised for use in older populations.

The investigation of marital status in the present study was limited, in that participants were grouped according to “widowed/not widowed” and married/not married”. Future

investigations need to explore the full spectrum of marital status (married, single [never married], divorced, separated, widowed) in order to explore the significance of this variable in SWB.

The relationship between gratitude and the temporal dimensions of life satisfaction needs further investigation. Research is beginning to uncover that individuals in early adulthood show a higher correlation between past, present and future life satisfaction and gratitude than individuals in late adulthood (Proyer et al., 2011). Interestingly, gratitude has a significant relationship with future life satisfaction with individuals in early and not late adulthood. These differences in relationships need to be investigated further, and the explanation for these differences needs to be explored (Proyer et al., 2011). Additionally, investigating the causal relationships between global life satisfaction and the temporal dimensions of life satisfaction may shed some light on the nature of these relationships, thus allowing for a clearer picture of the factors contributing to the differences in different age groups with regard to these variables.

The failure of health satisfaction to correlate with any of the SWB variables in late adulthood needs to be investigated further. Researchers need to examine whether other variables come into play when older adults consider their satisfaction with health, as it is becoming clear that the criteria these respondents use to evaluate their health is complex and multilayered. It is recommended that in addition to the health satisfaction question, objective measures of health should be included in analysis of health satisfaction to get a clearer picture of how individuals in late adulthood construct these evaluations. Additionally, the significant positive relationship between gratitude and health satisfaction in late adulthood needs to be explored further: Do the individuals in early adulthood that experience health problems also experience a reduction in gratitude?

During the arranged meetings between the researcher and participants, it became apparent in the discussions that their religion (namely, Christianity) played a very central role

in their expressions of gratitude. The concept of gratitude is paramount in Christian theology: John Baillie (1962, in Emmons & Kneezel, 2005, p. 140) stated in one of his 1961 Gifford lectures that “a true Christian is one who never for a moment forgets what God has done for him in Christ, and whose whole comportment and whole activity have their root in the sentiment of gratitude”. Gratitude within the Christian faith is not merely a sentimental feeling in response to a gift; it is rather a virtue that involves a sense of indebtedness and obligation which ultimately bonds followers of Christ together. The centrality of gratitude within the Christian faith shapes not only the emotions and thoughts of followers, but also their actions and deeds. A study conducted by Emmons and Kneezel (2005) found that religiously inclined individuals had a stronger dispositional gratitude when compared to their non-spiritual counterparts. Due to the fact that one of the most dominant religions in South Africa is Christianity, with roughly 79.8% of South Africans following this faith (Statistics South Africa, 2001), means that research on gratitude should take religious implications into account. The first published article on religion and its relationship to gratitude only came about in 2005, thus more research is needed on the relationship between gratitude and religiosity, as well as to uncover whether or not religiously inclined people have more resources in their repertoire which facilitate the successful counteraction of obstacles to grateful thinking.

Division across racial lines in South Africa is a topic that has been thoroughly investigated in psychological literature. The present study chose not to investigate race as a variable, as the main aim was to identify differences between young and late adults regarding positive psychological variables of SWB. To include an investigation of differences between racial lines would have overcomplicated this study, but this can become a focus in future research. Most SWB literature in South Africa investigates SWB variables across racial lines, some of which have found differences in SWB between racial groups (Neff, 2007). It would be prudent to consider whether there are differences in SWB between the developmental

stages within each racial group when exploring SWB in South African participants. It is recommended that future investigations on SWB in South Africa include comparative, longitudinal investigations on differences in SWB regarding race, as well as socioeconomic status in the South African population.

#### **6.4) Conclusion**

The findings of the present study suggest that there are significant differences in SWB variables between early and late adults in South Africa. It was uncovered that early and late adult South Africans differ significantly in their global life satisfaction and satisfaction with health. Additionally, when looking at trajectories of life satisfaction for each age group it became apparent that there are differences in how each age group reflects and anticipates life satisfaction as a result of their varying developmental tasks. Relationships between SWB variables also yielded some interesting differences between age groups, perhaps most remarkable is the fact that individuals in late adulthood do not show significant associations between any of the SWB variables and health satisfaction. Further research still needs to be done to investigate the nature of these relationships in order to get a clear picture of SWB in older individuals in South Africa.

## REFERENCES

- Abu-Bader, S. H., Rogers, A., & Barusch, A. S. (2002). Predictors of life satisfaction in frail elderly. *Journal of Gerontological Social Work, 38*(3), 3-17.
- Adams, D. L. (1971). Correlates of life satisfaction in old age. *The Gerontologist, 11*, 64-68.
- Adams, V. H. (1997). A paradox in African American quality of life. *Social Indicators Research, 42*, 205-219.
- Aldwin, C., Sutton, K., & Lachman, M. E. (1996). The development of coping resources in adulthood. *Journal of Personality, 64*, 837-871.
- Al-Windi, A. (2005). The relations between symptoms, somatic and psychiatric conditions, life satisfaction and perceived health. A primary care based study. *Health and Quality of Life Outcomes, 3*, 28.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of wellbeing: America's perception of life quality*. New York: Plenum.
- Angner, E., Ray, M. N., Saag, K. G., Allison, J. J. (2009). Health and happiness amongst older adults: A community-based study. *Journal of Health Psychology, 14*(4), 503-512.
- Antonucci, T., & Akiyama, H. (1991). Social relationships and aging well. *Generations, 15*(1), 29-44.
- Aquino, J. A., Russell, D. W., Cutrona, C. E., & Altmaier, E. M. (1996). Employment status, social support, and life satisfaction among the elderly. *Journal of Counselling Psychology, 43*(4), 480-489.
- Avia, M. D., & Vazquez, C. (1998). Optimal intelligence. *Alianza Editorial*. Madrid.
- Baillie, J. (1962). *The sense of the presence of God*. New York: Scribner.
- Baiyewu, O., & Jegede, R. O. (1992). Life satisfaction in elderly Nigerians: Reliability and factor composition of the Life Satisfaction Index Z. *Age and Ageing, 21*, 256-261.

- Baker, L. A., Cesa, I. L., Gatz, M., & Mellins, C. (1992). Genetic and environmental influences on positive and negative affect: Support for a two-factor theory. *Psychology and Aging, 7*, 158-163.
- Baltes, P. B., Lindenberger, U., & Staudinger, U. M. (2006). Life span theory in developmental psychology. In: Damon, W., & Lerner, R. M. (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (pp. 569-664). New York: Wiley.
- Baltes, P. B., & Mayer, K. U. (1999). *The Berlin aging study: Aging from 70 to 100*. Cambridge, United Kingdom: Cambridge University Press.
- Baltes, M. M., & Smith, J. (2003). New frontiers in the future of aging: From successful aging of the young old to the dilemma of the fourth age. *Gerontology, 49*, 123–135.
- Barrick, A. L., Hutchinson, R. L., & Deckers, L. H. (1989). Age effects on positive and negative emotions. *Journal of Social Behavior and Personality, 4*, 421-429.
- Bass, S. A. (1995). *Older and active: How Americans over 55 are contributing to society*. New Haven, CT: Yale University Press.
- Bennett, K. M. (2005). Psychological wellbeing in later life: the longitudinal effects of marriage, widowhood and marital status change. *International Journal of Geriatric Psychiatry, 20*, 280-284.
- Berg, A. I., Hassing, L. B., MCClearn, G. E., & Johansson, B. (2006). What matters for life satisfaction in the oldest-old? *Aging & Mental Health, 10*(3), 257–264.
- Bishop, A. J., Martin, P., & Poon, L. (2006). Happiness and congruence in older adulthood: A structural model of life satisfaction. *Aging and Mental Health, 10*(5), 445-453.
- Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research, 55*, 329-352.
- Blanchflower, D. G., & Oswald, A. J. (2007, September). Is well-being U-shaped over the life cycle? *The Institute for the Study of Labor (IZA) in Bonn, Discussion paper no. 3075*, 1-41.

Retrieved from

<http://www.nd.edu/~adutt/activities/documents/BlanchOsUshapeCohorts14Aug2006.pdf>

- Blieszner, R. (2000). Close relationship in old age. In: C. Hendrick (Ed). *Close relationships: a source book*. Thousand Oaks, CA: Sage Publication Inc.
- Bonanno, G. A., & Kaltman, S. (1999). Toward an integrative perspective on bereavement. *Psychological Bulletin*, *125*, 760–776.
- Bono, G., Emmons, R. A., & McCullough, M. E. (2004). Gratitude in practice and the practice of gratitude. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice* (pp. 464–481). Hoboken, NJ, US: John Wiley & Sons Inc.
- Bonsang, E., & Klein, T. J. (2011, February). Retirement and subjective well-being. *Institute for the Study of Labour (IZA) in Bonn, Discussion paper no. 5536, 1-38*. Retrieved from <http://arno.unimaas.nl/show.cgi?fid=21836>
- Borg, C., Hallberg, I. R., & Blomquist, K. (2006). Life satisfaction among older People (65+) with reduced self-care capacity: The relationship to social, health, and financial aspects. *Journal of Clinical Nursing*, *15*, 607–618.
- Bossé, R., Aldwin, C. M., Levenson, M. R., & Workman-Daniels, K. (1991). How stressful is retirement? Findings from the normative aging study. *Journal of Gerontology: Psychological Sciences*, *46*, 9-14.
- Bowling, A., & Farquhar, M. (1996). Associations with changes in life satisfaction among three samples of elderly people living at home. *International Journal of Geriatric Psychiatry*, *11*, 1077–1087.
- Bowling, A., & Gabriel, Z. (2004). An integrational model of quality of life in older age. Results from the ESRC/MRC HSRC quality of life survey in Britain. *Social Indicators Research*, *69*, 1-36.
- Bowling, A., & Windsor, J. (2001). Towards the good life: A population survey of dimensions of quality of life. *Journal of Happiness Studies*, *2*, 55-81

- Bradburn, N. M. (1969). *The structure of psychological well-being*. Chicago, IL: Aldine Publishing Company.
- Bradburn, N. M., & Caplovitz, D. (1965). *Reports on happiness*. Chicago, IL: Aldine Publishing Company.
- Brajković, L., Gregurek, R., Kušević, Z., Ratković, A. S., Braš, M., & Đorđević, V. (2011). Life satisfaction in persons of the third age after retirement. *Collegium Antropologicum*, 35(3), 665-671.
- Brandtstadter, J., & Renner, G. (1990). Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilation and accommodation strategies of coping. *Psychology and Aging*, 5, 58-67.
- Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation-level theory* (pp. 287–305). New York: Academic Press.
- Brickman, P., Coates, D., & Janoff-Bullman, R. (1978). Lottery-winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology*, 36, 917-927.
- Brief, A. P., Butcher, A. H., George, J. M., & Link, K. E. (1993). Integrating bottom-up and top-down theories of subjective well-being: The case of health. *Journal of Personality and Social Psychology*, 64, 646–653.
- Brim, O. G. (1992). *Ambition: How we manage success and failure throughout our lives*. New York: Basic Books.
- Brydon, L., Walker, C., Wawrzyniak, A. J. & Steptoe, A. (2009). Dispositional optimism and stress-induced changes in immunity and negative mood. *Brain Behavior and Immunity*, 23(6), 810-816.
- Bryman, A., & Cramer, D. (2004). Constructing variables. In M. Hardy and A. Bryman (Eds.), *Handbook of data analysis* (pp. 17-34). London: Sage Publications Inc.

- Bunk, B. P., Gibbons, F. X., & Reis-Bergan M. (1997). Social comparison in health and illness: a historical overview. In: B. P. Buunk and F. X. Gibbons. *Health, coping, and well-being: perspective from social comparison theory*. Mahwah: Laurence Erlbaum.
- Calasanti, T. M. (1996). Gender and life satisfaction in retirement: An assessment of the male model. *Journal of Gerontology: Social Sciences*, 51B(1), 18-29.
- Calvo, E., Haverstick, K., & Sass, S. A. (2009). Gradual retirement, sense of control, and retirees' happiness. *Research on Aging*, 31(1), 112-135.
- Campbell, A. (1981). *The sense of well-being in America: Recent patterns and trends*. New York: McGraw-Hill.
- Campbell, A., Converse, P. A., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.
- Cantril, H. (1966). *The pattern of human concerns*. New Brunswick, NJ: Rutgers University Press.
- Caplan, G. (1964). *Principles of preventative psychiatry*. New York: Basic Books.
- Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, 4, 151–155.
- Carstensen, L. L., & Charles, S. T. (1998). Emotion in the second half of life. *Current Directions in Psychological Science*, 7, 144-149.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54, 165–181.
- Carstensen, L.L., Gross, J., & Fung, H. (1997). The social context of emotion. In K.W. Schaie & M.P. Lawton (Eds.), *Annual review of gerontology and geriatrics: Vol. 17. Focus on emotion and adult development* (pp. 325-352). New York: Springer.
- Carstensen, L. L., Pasupathi, M., Mayr, U., & Nesselroade, J. R. (2000). Emotion experience in everyday life across the adult life span. *Journal of Personality and Social Psychology*, 79, 644-655.

- Carstensen, L. L., Scheibe, S., Ersner-Hershfield, E., Brooks, K. P., Turan, B., Ram, N., Samanez-Larkin, G. R., & Nesselroade, J. R. (2011). Emotional experience improves with age: Evidence based over 10 years of experience sampling. *Psychology and Aging, 26*(1), 21-23.
- Case, A., & Wilson, F. (2000). *Health and well-being in South Africa: Evidence from the Langeberg survey*, University of Cape Town.
- Charles, S.T., Mather, M., & Carstensen, L.L. (2003). Aging and emotional memory: The forgettable nature of negative images for older adults. *Journal of Experimental Psychology: General, 132*, 310–324.
- Charles, S. T., Reynolds, C. A., & Gatz, M. (2001). Age-related differences and change in positive and negative affect over 23 years. *Journal of Personality and Social Psychology, 80*(1), 136-151.
- Chatfield, W. F. (1977). Economic and sociological factors influencing life satisfaction of the aged. *Journal of Gerontology, 2*, 593-599.
- Chatters, L. M. (1988). Subjective well-being evaluations among older black Americans. *Psychology and Aging, 3*(2), 184-190.
- Chen, C. (2001). Aging and life satisfaction. *Social Indicators Research, 54*, 57–79.
- Chen, F. & Short, S. E. (2008). Household context and subjective well-being among the oldest-old in China. *Journal of Family Issues, 29*(10), 1379-1403.
- Clark, A. E., Georgellis, Y., Lucas, R. E., & Diener, E. (2002). *Unemployment alters the set-point for life satisfaction* (DELTA Working Paper 2002/17). Retrieved March 19, from <http://www.delta.ens.fr/abstracts/wp200217.pdf>
- Clark, A. E., & Oswald, A. (1994). Unhappiness and unemployment. *Economic Journal, 104*, 648–659.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Compton, W. (2005). *An introduction to positive psychology*. Belmont CA: Thomson- Wadsworth.

- Costa, P. T., Jr., Zonderman, A. B., McCrae, R. R., Cornoni-Huntley, J., Locke, B. Z., & Barbano, H. E. (1987). Longitudinal analyses of psychological well-being in a national sample: Stability of mean levels. *Journal of Gerontology, 42*, 50-55.
- Coyle, C. P., Lesnik-Emas, S., & Kinney, W. B. (1994). Predicting life satisfaction among adults with spinal cord injuries. *Rehabilitation Psychology, 39*(2), 95-111.
- Crowley, J. E. (1985). Longitudinal effects of retirement on men's psychological and physical well-being. In H. S., Parnes, J. E., Haurin, R. J., Less, L. J., Morgan, W. R., Mott, F. L., Nestel and G. Nestel (Eds.), *Retirement among American men* (pp. 150-86). Lexington, Massachusetts: Lexington Books.
- Csikszentmihalyi, M. (1999). If we are so rich, why aren't we happy? *American Psychologist, 54*, 821-827.
- Cummins, R. A. (1995). On the trail of the gold standard for subjective well-being. *Social Indicators Research, 35*, 179-200
- Cummins, R. A., Eckersley, R., Lo, S. K., Okerstrom, E., Hunter, B., & Davern, M. (2004). *Australian unity wellbeing index: Report 9.0. The well-being of Australians - owning a pet*. Melbourne, Australia: Australian Centre on Quality of Life.
- Cummins, R. A., Lau, A. L. D., & Stokes, M. (2004). HRQOL and subjective well-being: Non-complementary forms of outcome measurement. *Expert Review of Pharmacoeconomics and Outcomes Research, 4*, 413-420.
- Davis, G. D. (2007). Looking toward the future: Predicting retirement satisfaction. *The New School Psychology Bulletin, 5*(1), 107-127.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.
- Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research, 31*, 103-157.
- Diener, E. (2000). Subjective well-being. *American Psychologist, 55*, 34-43.

- Diener, E., & Biswas-Diener, R. (2000). *New directions in subjective well-being research: The cutting edge*. New York: Pergamon Press.
- Diener, E., & Diener, C. (1995). Most people are happy. *Psychological Science*, 7(3), 181-185.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting subjective well-being of nations. *Journal of Personality and Social Psychology*, 69(5), 851-864.
- Diener, E., Emmons, R.A., Larson, R.J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71-74.
- Diener, E., & Fujita, F. (1995). Resources, personal strivings and subjective wellbeing: A nomothetic and idiographic approach. *Journal of Personality and Social Psychology*, 68, 926-935.
- Diener, E., Gohm, C. L., Suh, M., & Oishi, S. (2000). Similarity of the relation between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology*, 31, 419-436.
- Diener, E., & Larson, R. J. (1984). Temporal stability and cross-situational consistency of positive and negative affect. *Journal of Personality and Social Psychology*, 47, 871-883.
- Diener, E., Scollon, C. N., & Lucas, R. E. (2003). The evolving concept of subjective well-being: The multifaceted nature of happiness. *Advances in Cell Aging and Gerontology*, 15, 187-219.
- Diener, E., & Suh, E. M. (1998). Subjective well-being and age: An international analysis. *Annual Review of Gerontology and Geriatrics*, 17, 304-24.
- Diener, E., Suh, E. M., Luca, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276-302.
- Diener, E., Suh, E. M., & Oishi, S. (1997). Recent findings on subjective well-being. *Indian Journal of Clinical Psychology*, 67, 55-84.
- Easterlin, R. A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences*, 100, 11176-11183.
- Edwards, J. N. & Klemmack, D. L. (1973). Correlates of life satisfaction: A reexamination. *Journal of Gerontology*, 28, 497-502.

- Ehrlich, B. S., & Isaacowitz, D. M. (2002). Does subjective well-being increase with age? *Perspectives in Psychology, 5*, 20-26.
- Ehrhardt, J. J., Saris, W. E., & Veenhoven, R. (2000). Stability of life-satisfaction over time: Analysis of change in ranks in a national population. *Journal of Happiness Studies, 1*, 177–205.
- Ekerdt, D. J., Vinick, B. H., & Bossé, R. (1989). Orderly endings: Do men know when they will retire? *Journal of Gerontology: Social Sciences, 44*, 28-35.
- Ellwell, F., & Maltbie-Crannel, A. D. (1981). The impact of role loss upon coping resources and life satisfaction of the elderly. *Journal of Gerontology, 36*, 223-232.
- Emmons, R. A., & Crumpler, C. A. (2000). Gratitude as a human strength: Appraising the evidence. *Journal of Social and Clinical Psychology, 19*, 56–69.
- Emmons, R. A., & Diener, E. (1985). Personality-correlates of subjective well-being. *Personality and Social Psychology Bulletin, 11*, 89–97.
- Emmons, R. A., & Kneezel, T. T. (2005). Giving thanks: Spiritual and religious correlates of gratitude. *Journal of Psychology and Christianity, 24*(2), 140-148.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*, 377–389.
- Emmons, R. A., & McCullough, M. E. (2004). *The psychology of gratitude*. New York: Oxford University Press.
- Emmons, R.A., & Shelton, C.M. (2002). Gratitude and the science of positive psychology. In C.R. Synder, & S.J. Lopez (Eds.), *Handbook of positive psychology* (pp. 459–471). New York: Oxford University Press.
- Erikson, E. (1959). Identity and the life cycle. *Psychological Issues, 1*, 1-171.
- Erikson, E. H. (1968). *Identity, youth and crisis*. New York: Norton.

- Erikson, E. H., Undén, A., & Elofsson, S. (2001). Self-rated health. Comparisons between three different measures. Results from a population study. *International Journal of Epidemiology*, *30*, 326-333.
- Ferraro, K. F. (1980). Self-ratings of health among the old and the old-old. *Journal of Health and Social Behavior*, *21*, 377-383.
- Fernandez-Ballesteros, R., Zamarron, M. D., & Ruiz, M. A. (2001). The contribution of socio-demographic and psychosocial factors to life satisfaction. *Ageing and Society*, *21*(1), 25-43.
- Fitzgerald, P. (1998). Gratitude and justice. *Ethics*, *109*, 119–153.
- Fleeson, W., & Heckhausen, J. (1997). More or less “me” in past, present, and future: Perceived lifetime personality. *Psychology and Aging*, *12*, 125–136.
- Folstein, M. F., Folstein, S. E., & McHugh, P. R. (1975). Mini-Mental State: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, *12*, 189-198.
- Foo, T. S. (2000). Subjective assessments of urban quality of life in Singapore (1997–1998), *Habitat International*, *24*, 31–49.
- Foxcroft, C., & Roodt, G. (2006). *Psychological assessment in the South African context*. Cape Town: Oxford University Press.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, *2*, 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*, 218-226.
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B*, *359*, 1367-1377.
- Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist*, *60*, 7, 678-686.

- Freund, A. M. (2006). Age-differential motivational consequences of optimization versus compensation focus in younger and older adults. *Psychology and Aging, 21*, 240–252.
- Freund, A., & Baltes, P. B. (1998). Selection, optimization and compensation as strategies of life management: Correlations with subjective indicators of successful aging. *Psychology and Aging, 13*, 531–543.
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*, 213–233.
- Froh, J. J., Yurkewicz, C., & Kashdan, T. B. (2009). Gratitude and subjective well-being in early adolescence: Examining gender differences. *Journal of adolescence, 32*(3), 633-650.
- Fry, C. L. (1996). Age, aging and culture. In R. H. Binstock and L. K. George (Eds.), *Handbook of aging and the social sciences* (4<sup>th</sup> ed., pp 117-136). San Diego: Academic Press.
- Fugl-Meyer, A. R., Melin, R., & Fugl-Meyer, K. S. (2002). Life satisfaction in 18- to 64-year-old Swedes: In relation to gender, age, partner- and immigrant status. *Journal of Rehabilitation Medicine, 34*, 239-246.
- Gall, T. L., Evans, D. R., & Howard, J. (1997). The retirement adjustment process: Changes in the well-being of male retirees across time. *Journal of Gerontology: Psychological Sciences 52B*(3), 110-7.
- George, L. K. (1990). Social structure, social processes and, social psychological states. In R. H. Binstock and L. K. George (Eds.), *Handbook of aging and the social sciences* (3<sup>rd</sup> ed., pp. 186-204). San Diego, California: Academic Press.
- George, L. K., & Clipp, E. C. (1991). Subjective components of aging well. *Generations, 15*(1), 57-60.
- George, L. K., & Landerman, R. (1984). Health and subjective well-being: A replicated secondary data analysis. *International Journal of Aging and Human Development, 19*, 133-156.

- Glenn, N. D. (1975). The contributions of marriage to the psychological well-being of males and females. *Journal of Marriage and Family Relations*, 37, 594–600.
- Goldberg, L. R. (1993). The structure of phenotypic personality-traits. *American Psychologist*, 48, 26–34.
- Gross, J. J., Carstensen, L. L., Pasupathi, M., Tsai, J., Skorpen, C. G., & Hsu, A. Y. C. (1997). Emotion and aging: Experience, expression, and control. *Psychology and Aging*, 12, 590–599.
- Gurin, G., Veroff, J., & Feld, S. (1960). *Americans view their mental health*. New York: Basic Books.
- Gwozdoz, W., & Sousa-Poza, A. (2009). Ageing, health and life satisfaction of the oldest old: An analysis for Germany. *The Institute for the Study of Labor (IZA) in Bonn, Discussion paper no. 4053*, 1-39. Retrieved from <http://www.politiquessociales.net/IMG/pdf/dp4053.pdf>
- Hamarat, E., Thompson, D., Steele, D., Matheny, K., & Simons, C. (2002). Age differences in coping resources and satisfaction with life among middle-aged, young-old, and oldest-old adults. *Journal of Genetic Psychology*, 163, 360–367.
- Hatch, L. R. (1999). *Beyond gender differences: Adapting to aging in life course perspective*. New York: Baywood Publishing Company Inc.
- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57, 731–739.
- Heckhausen, J., & Schulz, R. (1998). Developmental regulation in adulthood: Selection and compensation via primary and secondary control. In C.S. Dweck and J. Heckhausen (Eds.), *Motivation and self regulation across the lifespan* (pp. 50-77). New York: Cambridge University Press.
- Heckhausen, J., Dixon, R., & Baltes, P. B. (1989). Gains and losses in development throughout adulthood as perceived by different adult age groups. *Developmental Psychology*, 25, 109–121.

- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society*, 359, 1435-1446.
- Hepworth, S. J. (1980). Moderating factors of the psychological impact of unemployment. *Occupational Psychology*, 53, 139- 145.
- Herzog, A. R., House, J. S., & Morgan, J. N. (1991). Relation of work and retirement to health and well-being in older age. *Psychology and Aging* 6, 202-11.
- Hertzog, A. R., & Rogers, W. L. (1981). Age and satisfaction: Data from several large surveys. *Research on Aging*, 3, 142-165.
- Heybroek, L. (2011, July). *Life satisfaction and retirement: A latent growth mixture modelling approach*. Paper presented at HILDA Survey 10th Anniversary Research Conference, University of Melbourne.
- Higgs, N. T. (2006). Measuring and understanding the well-being of South Africans: Everyday quality of life in South Africa. *Social Indicators Research*, 81, 331-356.
- Horley, J., & Lavery, J. J. (1995). Subjective well-being and age. *Social Indicators Research*, 34, 275-282.
- Idler, E. L. (1993). Age differences in self-assessments of health: Age changes, cohort differences or survivorship? *Journal of Gerontology*, 48, 289-300.
- Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton, NJ: Princeton University Press.
- Jacobs, S. (1993). *Pathologic grief: Maladaptation to loss*. Washington, DC: American Psychiatric Press.
- Jeffres, L. W., & Dobos, J. (1995). Separating people's satisfaction with life and public perceptions of the quality of life in the environment. *Social Indicators Research*, 34, 181-211.
- John, O. P., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.). *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York, NY: Guilford Press.

- Jones, T. G., Rapport, L. J., Hanks, R. A., Lichtenberg, P. A., & Telmet, K. (2003). Cognitive and psychological predictors of subjective well-being in urban older adults. *The Clinical Neuropsychologist, 17*(1), 3-18.
- Kagitcibasi, C. (1997). Individualism-collectivism. In J. W. Berry, M. H. Segall, & C., Kagitcibasi (Eds.), *Handbook of cross-cultural psychology: Vol. 3. Social behavior and applications* (2nd ed., pp. 1–49). Boston: Allyn & Bacon.
- Kashdan, T. B., Mishra, A., Breen, W. E., & Froh, J. J. (2009). Gender differences in gratitude: Examining appraisals, narratives, the willingness to express emotions, and changes in psychological needs. *Journal of Personality, 77*(3), 1-40.
- Keyes, C. L. M., & Haidt, J. (2003). *Flourishing: Positive psychology and the life well lived*. Washington DC: American Psychological Association.
- Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing wellbeing: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82*, 1007–1022.
- Kim, K. A. (1998). *A study on the relationship between health status and life satisfaction of the aged in Korean*. Unpublished master's thesis, Busan University.
- Kim, J. E. & Moen, P. (2001). Is retirement good or bad for subjective well-being? *Current Directions in Psychological Science, 83-86*.
- Kim, J. E., & Moen, P. (2002). Retirement transitions, gender, and psychological well-being: A life course, ecological model. *Journal of Gerontology, 57B*(3), 212-222.
- Kozma, A., Stone, S., Stones, M. J., Hannah, T. E., & McNeil, K. (1990). Long- and short-term affective states in happiness: Model, paradigm and experimental evidence. *Social Indicators Research, 22*, 119-138.
- Krause, N. (1990). Perceived health problems, formal/informal support and life satisfaction among older adults. *Journal of Gerontology, 45*(5), 193-205.
- Krause, N. (2006). Gratitude toward God, stress, and health in late life. *Research on Aging, 28*, 163–183.

- Kunzmann, U., Little, T. D., & Smith, J. (2000). Age-related stability of subjective well-being a paradox? Cross-sectional and longitudinal evidence from the Berlin Aging Study. *Psychology and Aging, 15*, 511–526.
- Kurtz, J. L., & Lyubomirsky, S. (2008). Towards a durable happiness. In: Lopez, S. J., & Rettew, J. G. (Eds.). *The Positive Psychology Perspective Series* (Vol 4, pp. 21-36). Westport, CT: Greenwood Publishing Group.
- Lachman, M. E. (2004). Development in midlife. *Annual Review of Psychology, 55*, 305–331.
- Lachman, M. E., Rocke, C., Rosnick, C., & Ryff, C. D. (2008). Realism and illusion in Americans' temporal views of their life satisfaction: Age differences in reconstructing the past and anticipating the future. *Psychological Science, 19*, 9, 889-897.
- Lambert, N., M., Finchman, F., D., Stillman, T. F., & Dean, L. R. (2009). More gratitude, less materialism: The mediating role of life satisfaction. *The Journal of Positive Psychology, 4*(1), 32-42.
- Lang, F. R., & Heckhausen, J. (2001). Perceived control over development and subjective well-being: Differential benefits across adulthood. *Journal of Personality and Social Psychology, 81*, 509–523.
- Larson, R. (1978). Thirty years of research on the subjective well-being of older Americans. *Journal of Gerontology, 33*, 109-125.
- Larsen, R. J. (2000). Toward a science of mood regulation. *Psychological Inquiry, 11*, 129–141.
- Lawton, M. P. (2001). Emotion in later life. *Current Directions in Psychological Science, 10*, 120-123.
- Lazarus, R. S., & Lazarus, B. N. (1994). *Passion and reason: Making sense of our emotions*. New York: Oxford University Press.
- Lee, G. R., Seccombe, K., & Shehan, C. L. (1991). Marital status and personal happiness: An analysis of trend data. *Journal of Marriage and the Family, 53*, 839–844.

- Lee, Y., & Shinkai, S. (2003). A comparison of correlates of self-rated health and functional disability of older persons in the Far East: Japan and Korea. *Archives of Gerontology and Geriatrics*, 37(1), 63-76.
- Lelkes, O. (2008, March). Happiness across the life cycle: Exploring age-specific preferences. *Policy Brief, European Centre for Social Welfare Policy and Research*, 2-16.
- Levkoff, S. E., Cleary, P. D., & Wettle, T. (1987). Differences in the appraisal of health between aged and middle-aged adults. *Journal of Gerontology*, 42, 114–120.
- Li, Q. (2005). *Subjective Well-being and Mortality in Chinese Oldest Old* (MPIDR Working Paper 2005/011). Retrieved January 4, 2011, from <http://www.demogr.mpg.de/papers/working/wp-2005-011.pdf>
- Lindgren, A. M., Svardsudd, K., & Tibblin, G. (1994). Factors related to perceived health among elderly people: The Albertina project. *Age and Ageing*, 23(4), 328-333.
- Linley, P. A., Maltby, J., Wood, A. M., Joseph, S., Harrington, S., Peterson, C., Park, N., & Seligman, M. E. P. (2007). Character strengths in the United Kingdom: the VIA inventory of strengths. *Personality Development and Individual Differences*, 43, 341-351.
- Linley, P. A., & Joseph, S. (2004). *Positive psychology in practice*. Hoboken NJ: John Wiley.
- Lohmann, N. (1980). Life satisfaction research on aging: Implications for policy development. In N. Datan and N. Lohmann (Eds.), *Transitions of aging*. New York: Academic Press.
- Lohr, M., Essex, M., & Klein, M. (1988). The relationship of coping responses to physical health status and life satisfaction among old women. *Journal of Gerontology*, 43, 54-60.
- Louw, D., & Louw, A. (2009). *Adult development and aging*. Bloemfontein: ABC Printers.
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Re-examining adaptation and the setpoint model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, 84(3), 527-539.

- Lucas, R. E. & Gohm, C. L. (2000). Age and sex differences in subjective well-being across cultures. In Diener, E., & Suh, E. M. (Eds.), *Culture and subjective well-being* (pp. 291-318). Cambridge, MA: MIT Press.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science, 7*, 186–189.
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research, 46*, 137-155.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*, 111–131.
- Maddox, G. L. (1994). Sociology of aging. In W. R. Hazzard, E. L. Bierman, J. P. Blass, W. H. Ettinger, Jr., J. B. Halter, & R. Andres (Eds.), *Principles of geriatric medicine and gerontology* (pp. 125-134). New York, NY: McGraw-Hill, Inc.
- Magnus, K., & Diener, E. (1991). A longitudinal analysis of personality, life events, and subjective well-being. Paper presented at the Sixty-third Annual Meeting of the Midwestern Psychological Association, Chicago (May 2–4).
- Maluka, C. S. (2004). *Subjective well-being and self esteem in a disadvantaged community*. Unpublished master thesis, UNISA.
- Markides K. S., & Martin, H. W. (1979). A causal model of life satisfaction among the elderly. *Journal of Gerontology, 34*, 86-93.
- Marmot, M. G., Ryff, C., Bumpass, L., Shipley, M. J., & Marks, N. F. (1997) Social inequalities in health: Next questions and converging evidence. *Social Science and Medicine, 44*, 901–910.
- Martin, K. M., Huebner, E. S. (2007). Peer victimization and prosocial experiences and emotional well-being of middle school students. *Psychology in the Schools, 44*(2), 199-208.
- Maslow, A. H. (1954). *Motivation and personality*. New York: Harper and Row.
- Mastekaasa, A. (1992). Marriage and psychological well-being: Some evidence on selection into marriage. *Journal of Marriage and the Family, 54*, 901–911.

- Mayer, J. D., Salovey, P., Gromberg-Kaufman, S., & Blainey, K. (1991). A broader conception of mood experience. *Journal of Personality and Social Psychology, 60*, 100-111.
- McAdams, K. K., Lucas, R. E., & Donnellan, M. B. (2011). The role of domain satisfaction in explaining the paradoxical relationship between life satisfaction and age. *Social Indicators Research* (forthcoming).
- McCamish-Svensson, C., Samuelsson, G., Hagberg, B., Svensson, T., & Dehlin, O. (1999). Social relationships and health as predictors of life satisfaction in advanced old age: Results from a Swedish longitudinal study. *International Journal of Aging and Human Development, 48*(4), 301-324.
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*, 112–127.
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin, 127*, 249–266.
- McCullough, M. E., & Tsang, J. (2004). Parent of the virtues? The prosocial contours of gratitude. In R.A. Emmons, & M.E. McCullough (Eds.), *The psychology of gratitude* (pp. 123–141). New York: Oxford University Press.
- McCullough, M. E., Tsang, J. A., & Emmons, R. A. (2004). Gratitude in intermediate affective terrain: Links of grateful moods to individual differences and daily emotional experience. *Journal of Personality and Social Psychology, 86*, 295–309.
- Medley, M. L. (1980). Life satisfaction across four stages of adult life. *International Journal of Aging and Human Development, 11*, 193-209.
- Meyers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist, 55*, 56-57.
- Michalos, A. C. (2004). Social indicators research and health- related quality of life research. *Social Indicators Research, 65*, 27-72.

- Midanik, L. T., Soghikian, K., Ransom, L. J., & Teckawa, I. S. (1995). The effect of retirement on mental health and health behavior: The Kaiser Permanente retirement study. *Journal of Gerontology: Social Sciences*, 50B, 59-62.
- Moen, P. (2001). The gendered life course. In L. K. George & R. H. Binstock (Eds.), *Handbook of aging and the social sciences* (5<sup>th</sup> ed., pp 179-196). San Diego, CA: Academic Press.
- Moller, V. (1998). Quality of life in South Africa: Post apartheid. *Social Indicators Research*, 43(1-2), 27-68.
- Moller, V. (2001). Happiness trends under democracy: Where will the new South African set level come to rest? *Journal of Happiness Studies*, 2, 33-53.
- Moller, V., & Saris, W. E. (2001). The relationship between subjective well-being and domain satisfactions in South Africa. *Social Indicators Research*, 55, 97-114.
- Morgan, L. (1992). Marital status and retirement plans: Do widowhood and divorce make a difference? In: M. Szinovacz, D. J. Ekerdt and B. H. Vinick. *Families and retirement*. Newbury Park, CA: Sage.
- Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: A developmental perspective on happiness. *Journal of Personality and Social Psychology*, 75, 1333-1349.
- Mroczek, D. K., & Spiro, A. (2005). Change in life satisfaction during adulthood: Findings from the veterans affairs normative aging study. *Journal of Personality and Social Psychology*, 88(1), 189-202.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10-19.
- Neff, D. F. (2007). Subjective well-being, poverty and ethnicity in South Africa: Insights from an exploratory analysis. *Social Indicators Research*, 80, 313-341.
- Neri, A. L. (2007). *Qualidade de vida na velhice: enfoque multidisciplinar*. Campinas: Alinea.
- Newby-Clark, I. R., & Ross, M. (2003). Conceiving the past and future. *Personality and Social Psychology Bulletin*, 29, 807-818.

- Newman, B. M., & Newman, P. R. (1999). *Development through life: A Psychosocial Approach* (7<sup>th</sup> edition). London: Brooks/Cole Wadsworth.
- Okma, P., & Veenhoven, R. (1996). *Is a longer life better? Happiness of the very old in 8 EU-countries*. Manuscript in preparation.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. Cambridge, UK: Cambridge University Press.
- Otake K., Shimai, S., Tanaka-Matsumi, J., Otsui, K., & Fredrickson, B. L. (2006). Happy people become happier through kindness: Counting kindnesses intervention. *Journal of Happiness Studies*, 7(3), 361-775.
- Palmore, E. B., Burchett, B. M., Fillenbaum, G. G., & George, L. K. (1985). *Retirement: Causes and consequences*. New York: Springer Publishing.
- Park, N., Peterson, C., & Seligman, M. E. P. (2004). Strengths of character and well-being. *Journal of Social and Clinical Psychology*, 23(5), 603-619.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5, 164-172.
- Pavot, W., & Diener, E. (2004). The subjective evaluations of well-being in adulthood: Findings and implications. *Aging International*, 29(2), 113-135.
- Pavot, W., Diener, E., & Suh. E. (1998). The Temporal Satisfaction With Life Scale. *Journal of Personality Assessment*, 70(2), 340-354.
- Pesler, A. (2005). Trends and changes in South African population structure: Some implications for planning and policy making. *Town and Regional Planning*, 49, 17-25.
- Peterson, C. (2006). *A primer in positive psychology* New York. Oxford University Press.
- Peterson, C., & Seligman, E. P. (2004). *Character strengths and virtues: A handbook and classification*. Oxford, New York: Oxford University Press.
- Pinquart, M. (2001). Correlates of subjective health in older adults: A meta-analysis. *Psychology and Aging*, 16, 414-426.

- Pinquart, M., & Schindler, I. (2007). Changes in life satisfaction in the transition to retirement: A latent-class approach. *Psychology and Aging, 22*(3), 442-455.
- Pinquart, M., & Sorenson, S. (2000). Influences of socio-economic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and Aging, 15*(2), 187-224.
- Powdthavee, N. (2003). Is the structure of happiness equations the same in poor and rich countries: The case of South Africa. Mimeographed, University of Warwick.
- Powdthavee, N. (2004). Unhappiness and crime: Evidence from South Africa. Mimeographed, University of Warwick.
- Prenda, K. M., & Lachman, M. E. (2001). Planning for the future: A life management strategy for increasing control and life satisfaction in adulthood. *Psychology and Aging, 16*, 206–216.
- Proyer, R. T., Gander, F., Wyss, T., & Ruch, W. (2011). The relation of character strengths to past, present and future life satisfaction among German-speaking women. *Applied Psychology, Health and Well-being, 3*(3), 270-384.
- Rapkin, B. D., & Fischer, K. (1992). Framing the construct of life satisfaction in terms of older adults' personal goals. *Psychology and Aging, 7*, 138-149.
- Realo, A. (2003). Comparison of public and academic discourses: Estonian individualism and collectivism revisited. *Culture & Psychology, 9*, 47–77.
- Realo, A., Koido, K., Ceulemans, E., & Allik, J. (2002). Three components of individualism. *European Journal of Personality, 16*, 163–184.
- Reitzes, D. C., Mutran, E. J. & Fernandez, M. E. (1996a). Preretirement influences on postretirement self-esteem. *Journal of Gerontology: Social Sciences, 51B*, 242-9.
- Richard, E., Gohm, L., & Gohm, C. (2003). Age and sex differences in subjective well-being across cultures. In: E. Diener and E. M. Suh. *Culture and subjective well-being*. Cambridge: MIT.

- Robinson, M. D., & Clore, G. L. (2002). Episodic and semantic knowledge in emotional self-report: Evidence for two judgment processes. *Journal of Personality and Social Psychology*, 83, 198-215.
- Robinson, M. D., & Ryff, C. D. (1999). The role of self-deception in perceptions of past, present, and future happiness. *Personality and Social Psychology Bulletin*, 25, 596–608.
- Rocke, C., & Lachman, M. E. (2008). Perceived trajectories of life satisfaction across past, present, and future: Profiles and correlates of subjective change in young, middle-aged, and older adults. *Psychological Aging*, 23(4), 833-847.
- Roecke, C., Li, S.-C., & Smith, J. (2009). Intraindividual variability in positive and negative affect over 45 days: Do older adults fluctuate less than younger adults? *Psychology and Aging*, 24, 863–878.
- Rosenberg, E. L. (1998). Levels of analysis and the organization of affect. *Review of General Psychology*, 2, 247–270.
- Ryan, R. M., & Deci, E. L. (2001). To be happy or to be self-fulfilled: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual Review of Psychology* (Vol. 52; 141-166). Palo Alto, CA: Annual Reviews/ Inc.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Ryff, C. D. (1991). Possible selves in adulthood and old age: A tale of shifting horizons. *Psychology and Aging*, 6, 286-295.
- Ryff, C. D., Keyes, C. L. M., & Hughes, D. L. (1998). *Psychological well-being in the MIDMAC national survey: Profiles of ethnic, racial diversity and life course uniformity*. Manuscript submitted for publication.
- Ryff, C. D., & Singer, B. H. (1998). Middle age and well-being. In: H. S. Friedman (Ed.), *Encyclopaedia of mental health* (pp. 707-719). San Diego: Academic Press.

- Sauer, W. (1977). Moral of the urban aged: A regression analysis by race. *Journal of Gerontology*, 32, 600-608.
- Schilling, O. (2006). Development of life satisfaction in old age: Another view on the 'paradox'. *Social Indicators Research*, 75, 241-271.
- Schulhzt-Larson, K., Lomholt, R. K., & Kreiner, S. (2007). Mini-Mental Status Examination: A short form of MMSE was as accurate as the original MMSE in predicting dementia. *Journal of Clinical Epidemiology*, 60, 260-267.
- Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The Foundations of Hedonic Psychology* (pp. 61-84). Russell Sage Foundation, New York.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Sheldon, K.M., & King, L. (2001). Why is positive psychology necessary? *American Psychologist*, 56(3), 216-217.
- Sheldon, K. M., & Lyubomirsky, S. (2006). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. *Journal of Positive Psychology*, 1(2), 73-82.
- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5, 475-492.
- Shmotkin, D. (1991). The role of time orientation in life satisfaction across the life span. *Journal of Gerontology*, 46, 243-250.
- Shmotkin, D., & Hadari, G. (1996). An outlook on subjective well-being in older Israeli adults: A unified formulation. *International Journal of Aging and Human Development*, 42, 271-289.
- Silin, P. S. (2001). *Nursing homes: the family's journey*. Baltimore: The John Hopkins.
- Simmel, G. (1950). *The sociology of George Simmel*. Glencoe, IL: Free Press.

- Simons, L. A., McCallum, J., Simons, J., & Friedlander, Y. (1992). Health status and lifestyle in elderly Hawaii Japanese and Australian men. Exploring known differences in longevity. *Medical Journal of Australia*, *157*(3), 188-190.
- Smith, J., Borchelt, M., Maier, H., & Jopp, D. (2002). Health and well-being in young-old and oldest-old. *Journal of Social Issues*, *58*(4), 715-732.
- Sneed, J. R., & Whitbourne, S. K., (2003). Identity processing and self-consciousness in middle and later adulthood. *Journal of Gerontology: Psychological Sciences*, *58B*, 313-319.
- Snyder, C. R., & Lopez, J. S. (2009). *Handbook of positive psychology*. New York: Oxford University Press.
- Stacey, C. A., & Gatz, M. (1991). Cross-sectional age differences and longitudinal change on the Bradburn Affect Balance Scale. *Journal of Gerontology: Psychological Sciences*, *46*, 76-78.
- Statistics South Africa (2001). *Census 2001: Primary tables of South Africa. Census '96 and 2001 compared*. Retrieved March 21, 2012, from <http://statssa.gov.za/census01/html/RSAPrimary.pdf>
- Staudinger, U. M. (2000). Many reasons speak against it, yet many people feel good: The paradox of subjective well-being. *Psychologische Rundschau*, *51*, 185–197.
- Stock, W. A., Okun, M. A., Haring, M. J., & Witter, R. A. (1983). Age and subjective well-being: A meta-analysis. In R. J. Light (Ed.), *Evaluation studies: Review annual* (Vol. 8, pp. 279-302). Beverly Hills, CA: Sage.
- Suh, E. M. (2000). Self, the hyphen between culture and subjective well-being. In E. Diener and E. M. Suh (Eds.). *Culture and subjective well-being* (pp. 63-86). Cambridge, MA: MIT Press.
- Suh, E. M., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, *74*, 482–93.
- Svedberg, P (2006). Declining child malnutrition: a re-assessment. *International Journal of Epidemiology*, *35*, 1336-46.

- Szinovacz, M. E. (2003). Contexts and pathways: Retirement as institution, process, and experience. In G. A. Adams and T. A. Beehr (Eds), *Retirement: reasons, processes, and results* (pp. 6-52). New York: Springer Publishing Company.
- Szinovacz, M., Ekerdt, D. J., & Vinick, B. H. (1992). *Families and retirement*. Newbury Park, CA: Sage.
- Taylor S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193-210.
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO: Westview Press.
- Vassar, M. (2008). A note on the score reliability for the Satisfaction With Life Scale: An RG study. *Social Indicators Research*, *86*(1), 47-57.
- Vaux, A., & Meddin, J. (1987). Positive and negative life change and positive and negative affect among the rural elderly. *Journal of Community Psychology*, *15*, 447-458.
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, *24*, 1-34.
- Veenhoven, R. (1996). Developments in satisfaction-research. *Social Indicators Research*, *37*, 1-46.
- Veroff, J., Douvan, E., & Kulka, R. A. (1981). *The inner American: A self-portrait from 1957 to 1976*. New York: Basic Books.
- Wagnild, G. (2003). Resilience and successful aging: Comparison among low and high income older adults. *Journal of Gerontological Nursing*, *29*(12), 42-49.
- Wallace, K. A., Bisconti, T. L. & Bergeman, C. S. (2001). The mediating effect of hardiness on social support and optimal outcomes in later life. *Basic and Applied Social Psychology*, *23*(4), 267-279.
- Wan, T. T. H. (1985) *Well-being of the elderly*. Lexington, Massachusetts: Lexington Books.
- Warren, D. (1986). The helping roles of neighbors some empirical patterns. In: R. Taylor (Ed.), *Urban Neighborhoods Research and Policy* (pp. 310-330). Praeger: New York.
- Watkins, P. C. (2004). Gratitude and subjective well-being. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 167–194). New York: Oxford University Press.

- Watkins, P. C., Porter, W. T., & Miller, C. (1997, April). *Gratitude and subjective well-being*. Paper presented to the Annual Convention of Western Psychological Association, Seattle, WA.
- Watkins, P. C., Porter, W. T., & Curtis, N. (1996, April). *The attitude of gratitude: Development of a new measure*. Paper presented at the annual convention of the Western Psychological Association, San Jose, CA.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.
- Wechsler, D. (1981). *Wechsler Adult Intelligence Scale – Revised*. New York: Psychological Corporation.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 94*(4), 548-573.
- Westaway, M. S. (2006). A longitudinal investigation of satisfaction with personal and environmental quality of life in an informal South African housing settlement, Doornkop, Soweto. *Habitat International, 30*, 175-189.
- Westaway, M. S., & Gumede, T. (2001). Satisfaction with personal and environmental quality of life a black South African informal settlement perspective, *Curationis, 24*, 28–34.
- Westaway, M. S., & Maluka, C. S. (2005). Are life satisfaction and self-esteem distinct constructs? A black South African perspective. *Psychological Reports, 97*, 567-575.
- Westaway, M. S., Maritz, C., & Golele, N. J. (2003). Empirical testing of the Satisfaction With Life Scale: A South African pilot study. *Psychological Reports, 92*, 551-554.
- Westaway, M. S., Olorunju, S. A. S., & Rai, L. J. (2007). Which personal quality of life domains affect the happiness of older South Africans? *Quality of Life Research, 16*, 1425-1438.
- Williams, D. E., & Thompson, J. K. (1993). Biology and behavior: A set-point hypothesis of psychological functioning. *Behavior Modification, 17*, 43–57.
- Wills, T. A. (1997). Modes and families of coping: An analysis of social comparison in the structure of other cognitive and behavioral mechanisms. In: B. P. Buunk and F. Gibbons (eds.).

*Health, coping, and well-being: perspective from social comparison theory.* Mahwal: Laurence Erlbawm.

Wilson, W. (1967). Correlates of avowed happiness. *Psychological Bulletin*, 67, 294-306.

Wood, A. M., Joseph, S., & Linley, P. A. (2007b). Coping style as a psychological resource of grateful people. *Journal of Social and Clinical Psychology*, 26, 1108–1125.

Wood, A. M., Joseph, S. & Maltby, J. (2008). Gratitude predicts psychological well-being above the big five facets. *Personality and Individual Differences*, 45, 655-660.

Wood, A. M., Maltby, J., Stewart, N., Linley, P. A., & Joseph, S. (2008). A social-cognitive model of trait and state levels of gratitude. *Emotion*, 8, 281-290.

Yoo, S. H. (1997). Effects of number of children and co residence with married adult children on life satisfaction among elderly Koreans: An analysis by gender and marital status in Korean. *Korean Journal of Research in Gerontology*, 17(2), 38-50.

## APPENDICES

### Appendix A: Biographical Questionnaire:

*Please fill out the following questions and mark the appropriate boxes with an 'X' where necessary:*

Name: \_\_\_\_\_

Surname: \_\_\_\_\_

Age: \_\_\_\_\_

Gender:  M  F

Telephone number: Code \_\_\_\_\_ Number \_\_\_\_\_

Highest educational qualification: \_\_\_\_\_

---

*Please answer the following questions if you are 60 years old and above:*

How long have you been retired? \_\_\_\_\_

How long have you been living in your retirement village? \_\_\_\_\_

Are you married?  Y  N

Have you lost a spouse due to them passing away?  Y  N

If you answered yes to the previous question, how long ago did this happen? \_\_\_\_\_

**Appendix B: Biologiese Vraelys**

*Beantwoord asseblief die volgende vrae en maak 'n X in die toepaslike blokkie waar nodig.*

Naam: \_\_\_\_\_

Van: \_\_\_\_\_

Ouderdom: \_\_\_\_\_

Geslag:  M  V

Telefoonnommer: Kode \_\_\_\_\_ Nommer \_\_\_\_\_

Hoogste opvoedkundige kwalifikasie: \_\_\_\_\_

---

*Beantwoord asseblief die volgende vrae as u 60 jaar of ouer is:*

Hoe lank is u al afgetree? \_\_\_\_\_

Hoe lank woon u al in die aftreeoord? \_\_\_\_\_

Is u getroud?  J  N

Het u al 'n huweliksmaat aan die dood afgestaan?  J  N

As u antwoord op die vorige vraag 'ja' was, hoe lank gelede het dit gebeur? \_\_\_\_\_

**Appendix C: MMSE-2 (English)**

Date of examination: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 Examiner: \_\_\_\_\_  
 Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_  
 Years of school completed: \_\_\_\_\_  
 Purpose of exam: \_\_\_\_\_

Instructions: The words in boldface type should be read aloud clearly and slowly to the examinee. Item substitutions appear in parentheses. Administration should be conducted privately and in the examinee’s primary language. Unless otherwise specified, circle 0 if the response is incorrect or 1 if the response is correct. Begin by introducing the test:

**Now I’d like to ask you some questions about your memory.**

**REGISTRATION  
SCORE**

**RESPONSE**

**Listen carefully. I am going to say three words. You say them back after I stop. Ready? Here they are... MILK [pause], SENSIBLE [pause], BEFORE [pause]. Now report these words back to me.**

*[Repeat up to 3 times, but score only the first trial.]*

<b>MILK</b>	_____	<b>0</b>	<b>1</b>
<b>SENSIBLE</b>	_____	<b>0</b>	<b>1</b>
<b>BEFORE</b>	_____	<b>0</b>	<b>1</b>

**Now keep those words in your mind. I am going to ask you to say them again in a few minutes.**

**ORIENTATION TO TIME**

**What day is today? What is the ...**

<b>year?</b>	_____	<b>0</b>	<b>1</b>
<b>season?</b>	_____	<b>0</b>	<b>1</b>
<b>month of the year</b>	_____	<b>0</b>	<b>1</b>
<b>day of the week?</b>	_____	<b>0</b>	<b>1</b>
<b>date?</b>	_____	<b>0</b>	<b>1</b>

**ORIENTATION TO PLACE\***

**Where are you now? What is the...**

<b>province?</b>	_____	<b>0</b>	<b>1</b>
<b>city/town</b>	_____	<b>0</b>	<b>1</b>
<b>part of city/neighborhood?</b>	_____	<b>0</b>	<b>1</b>
<b>building (name or type)?</b>	_____	<b>0</b>	<b>1</b>
<b>floor of building</b>	_____	<b>0</b>	<b>1</b>
<b>(room number or address) ?</b>	_____	<b>0</b>	<b>1</b>

\*Alternative place words that are appropriate for the setting and increasingly precise may be substituted and noted

**RECALL**

What were those three words I asked you to remember? [do not offer any hints.]

MILK	_____	0	1
SENSIBLE	_____	0	1
BEFORE	_____	0	1

**ATTENTION AND CALCULATION [Serial 7s]**

Now I'd like you to subtract 7 from 100. Then keep subtracting 7 from each answer until I tell you to stop.

What is 100 take away 7? [93]	_____	0	1
If needed, say: Keep going. [86]	_____	0	1
If needed, say: Keep going. [79]	_____	0	1
If needed, say: Keep going. [72]	_____	0	1
If needed, say: Keep going. [65]	_____	0	1

Score 1 point for each correct answer. An answer is considered correct if it is 7 less than the previous answer, even if the previous answer is incorrect.

**NAMING**

What is this? [Point to eye.]	_____	0	1
What is this? [Point to ear.]	_____	0	1

**REPETITION**

I am going to ask you to repeat what I say. Ready? IT IS A LOVELY, SUNNY DAY BUT TOO WARM.

Now you say that. [Wait for examinee response and record response verbatim. Repeat up to one time]

IT IS A LOVELY, SUNNY DAY BUT TOO WARM	_____	0	1
--	-------	---	---

Detach the last page of this form. Tear the detached page in half along the horizontal perforation line. Use the upper half of the detached page, which has three shapes on it, as a stimulus form for the Comprehension task. Use the bottom half of the page as a stimulus form for the reading ("CLOSE YOUR EYES") task. Use the upper back half of the detached page as a stimulus and response form for the Drawing (intersecting pentagons) task and the bottom half of the page as a response form for the Writing task. {note to Cobus Snyman, the last page of the form will be attached separately}

**COMPREHENSION**

Listen carefully because I am going to ask you to do something. [*Show examinee the geometric figures stimulus page.*] Look at these pictures and point to the circle, then point to the square, and then point to the triangle.

Correct response	Observed response		
○		0	1
□		0	1
△		0	1

**READING**

[*Show examinee the word stimulus page.*] Please do what this says to do.

**CLOSE YOUR EYES** \_\_\_\_\_ 0 1

**WRITING**

[*Place the blank piece of paper in front of the examinee and provide a pen or pencil.*]

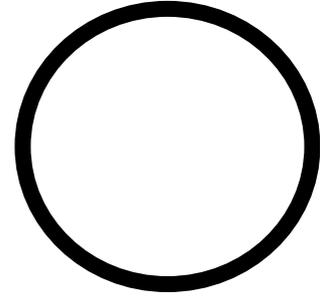
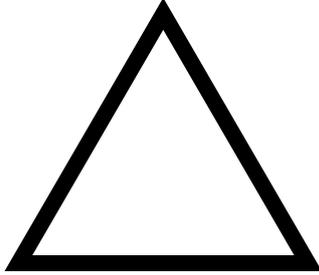
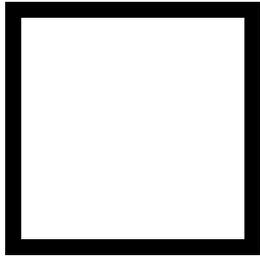
**Please write a sentence.** [*If the examinee does not respond, say: Write about where you live.*]

Score one point if the sentence is comprehensible and contains a subject and a verb. Ignore errors in grammar or spelling. 0 1

**DRAWING**

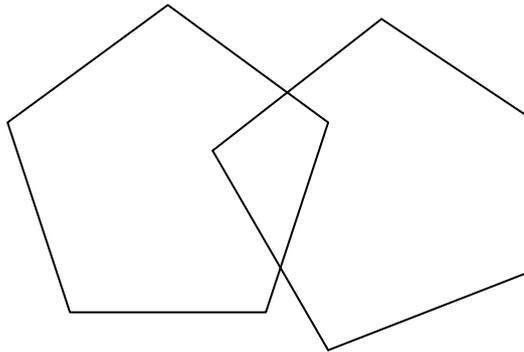
[*Display the intersecting pentagons on the stimulus form and provide a pen or pencil.*]

**Please copy this design.** Score one point if the drawing consists of two 5-sided figures that intersect to form a 4-sided figure 0 1



---

**CLOSE YOUR EYES**



**Appendix D: MMSE-2 (Afrikaans)**

Date of examination: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Examiner: \_\_\_\_\_

Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Years of school completed: \_\_\_\_\_

Purpose of exam: \_\_\_\_\_

Instructions: The words in boldface type should be read aloud clearly and slowly to the examinee. Item substitutions appear in parentheses. Administration should be conducted privately and in the examinee's primary language. Unless otherwise specified, circle 0 if the response is incorrect or 1 if the response is correct. Begin by introducing the test:

**Nou wil ek u 'n paar vrae oor u geheue stel.**

**AFNEMING  
UITSLAG****RESPONS**

**Luister mooi. Ek gaan drie woorde sê. Wanneer ek klaar is, herhaal u hulle. Gereed? Hier kom hulle: MELK [pause], VERSTANDIG [pause], VOORDAT [pause]. Herhaal nou hierdie woorde vir my.**

*[Repeat up to 3 times, but score only the first trial.]*

<b>MELK</b>	_____	<b>0</b>	<b>1</b>
<b>VERSTANDIG</b>	_____	<b>0</b>	<b>1</b>
<b>VOORDAT</b>	_____	<b>0</b>	<b>1</b>

**Knoop nou hierdie woorde in u gedagtes vas. Ek gaan u oor 'n paar minute weer vra om hulle te herhaal.**

**INGESTELDHEID TEENOR TYD**

**Watter dag is dit vandag? Wat is die ...**

<b>jaartal?</b>	_____	<b>0</b>	<b>1</b>
<b>seisoen?</b>	_____	<b>0</b>	<b>1</b>
<b>maand van die jaar?</b>	_____	<b>0</b>	<b>1</b>
<b>dag van die week?</b>	_____	<b>0</b>	<b>1</b>
<b>datum?</b>	_____	<b>0</b>	<b>1</b>

**INGESTELDHEID TEENOR PLEK\***

**Waar bevind u u nou? In watter ...**

<b>provinsie?</b>	_____	<b>0</b>	<b>1</b>
<b>stad/dorp?</b>	_____	<b>0</b>	<b>1</b>
<b>voorstad/woonbuurt?</b>	_____	<b>0</b>	<b>1</b>
<b>gebou (name or type)?</b>	_____	<b>0</b>	<b>1</b>
<b>En op watter verdieping (room number or address)?</b>	_____	<b>0</b>	<b>1</b>

\*Alternative place words that are appropriate for the setting and increasingly precise may be substituted and noted

**GEHEUE**

Wat is daardie woorde wat ek u gevra het om te onthou? [do not offer any hints.]

MELK	_____	0	1
VERSTANDIG	_____	0	1
VOORDAT	_____	0	1

### AANDAG EN HOOFREKENE [Reeks van 7's]

Nou wil ek vra dat u 7 aftrek by 100. Hou aan om 7 by elke daaropvolgende antwoord af te trek totdat ek sê u kan ophou.

Wat is 100 minus 7? [93]	_____	0	1
If needed, say: Gaan voort. [86]	_____	0	1
If needed, say: Gaan voort. [79]	_____	0	1
If needed, say: Gaan voort. [72]	_____	0	1
If needed, say: Gaan voort. [65]	_____	0	1

Score 1 point for each correct answer. An answer is considered correct if it is 7 less than the previous answer, even if the previous answer is incorrect.

### BENOEMING

Wat is dit? [Point to eye.]	_____	0	1
Wat is dit? [Point to ear.]	_____	0	1

### HERHALING

Ek gaan u vra om te herhaal wat ek nou gaan sê. Gereed? DIT IS 'N PRAGTIGE, SONNIGE DAG, MAAR TE WARM.

Nou is dit u beurt. [Wait for examinee response and record response verbatim. Repeat up to one time]

IT IS A LOVELY, SUNNY DAY BUT TOO WARM	_____	0	1
--	-------	---	---

Detach the last page of this form. Tear the detached page in half along the horizontal perforation line. Use the upper half of the detached page, which has three shapes on it, as a stimulus form for the Comprehension task. Use the bottom half of the page as a stimulus form for the reading ("CLOSE YOUR EYES") task. Use the upper back half of the detached page as a stimulus and response form for the Drawing (intersecting pentagons) task and the bottom half of the page as a response form for the Writing task. {note to Cobus Snyman, the last page of the form will be attached separately}

**BEGRIP**

**Luister mooi, want ek gaan u vra om iets te doen.** [*Show examinee the geometric figures stimulus page.*] **Kyk na hierdie figure en wys vir my die sirkel, dan die vierkant en dan die driehoek.**

Korrekte respons	Respons waargeneem		
○		0	1
□		0	1
△		0	1

**LEES**

[*Show examinee the word stimulus page.*] **Doen asseblief wat hier staan u moet doen.**

**MAAK U OË TOE.** \_\_\_\_\_

0 1

**SKRYF**

[*Place the blank piece of paper in front of the examinee and provide a pen or pencil.*]

**Skryf asseblief 'n sin neer.** [*If the examinee does not respond, say: Skryf iets oor waar u woon.*]

Score one point if the sentence is comprehensible and contains a subject and a verb.

0 1

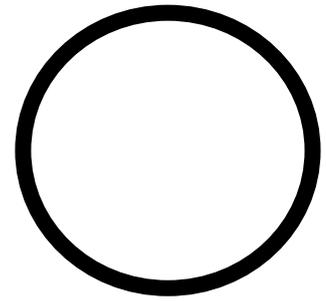
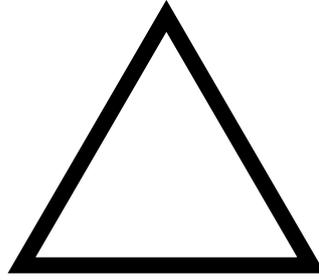
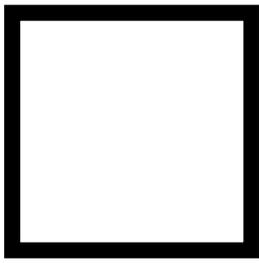
Ignore errors in grammar or spelling.

**TEKEN**

[*Display the intersecting pentagons on the stimulus form and provide a pen or pencil.*]

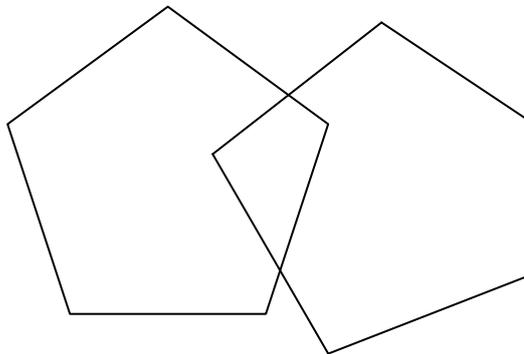
**Teken asseblief hierdie figuur oor.** Score one point if the drawing consists of two 5-sided figures that intersect to form a 4-sided figure

0 1



---

**MAAK U OË TOE.**



**Appendix E: Satisfaction With Life Scale (English)****Satisfaction With Life Scale**

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest with your responding. The 1-7 scale is as follows:

- 1 = strongly disagree
- 2 = disagree
- 3 = slightly disagree
- 4 = neither agree nor disagree
- 5 = slightly agree
- 6 = agree
- 7 = strongly agree

- \_\_\_ 1. In most ways my life is close to my ideal.
- \_\_\_ 2. The conditions of my life are excellent.
- \_\_\_ 3. I am satisfied with my life.
- \_\_\_ 4. So far I have gotten the important things I want in life.
- \_\_\_ 5. If I could live my life over, I would change almost nothing.

## Appendix F: Satisfaction With Life Scale (Afrikaans)

### Meetinstrument vir lewensbevrediging (SWLS – Satisfaction With Life Scale)

Hier onder is vyf stellings waarmee u mag saamstem of waarvan u mag verskil. Gebruik die punteskaal van 1 tot 7 om by elke nommer aan te dui in watter mate u saamstem deur die toepaslike syfer in die spasie voor die betrokke stelling in te vul. Antwoord asseblief openhartig en eerlik. Die sewepunt-skaal werk só:

- 1 = verskil ten sterkste
- 2 = verskil
- 3 = verskil in 'n mate
- 4 = verskil nie óf stem saam nie
- 5 = stem in 'n mate saam
- 6 = stem saam
- 7 = stem heelhartig saam

- \_\_\_ 1. My lewe is in die meeste opsigte naby aan my ideaal.
- \_\_\_ 2. My lewensomstandighede is uitstekend.
- \_\_\_ 3. Ek is tevrede met my lewe.
- \_\_\_ 4. Tot dusver het ek die belangrike dinge wat ek in die lewe wou hê, gekry.
- \_\_\_ 5. As ek my lewe kon oor hê, sou ek byna niks daaraan verander nie.

## Appendix G: Temporal Satisfaction With Life Scale (English)

### Temporal Satisfaction With Life Scale

Below are fifteen statements with which you may agree or disagree. These statements concern either your past, present or future. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7-point scale is:

- 1 = strongly disagree
- 2 = disagree
- 3 = slightly disagree
- 4 = neither agree nor disagree
- 5 = slightly agree
- 6 = agree
- 7 = strongly agree

- \_\_\_ 1. If I had to live my past over, I would change nothing.
- \_\_\_ 2. I am satisfied with my life in the past.
- \_\_\_ 3. My life in the past was ideal for me.
- \_\_\_ 4. The conditions of my life in the past were excellent.
- \_\_\_ 5. I had the important things I wanted in my past.
- \_\_\_ 6. I would change nothing about my current life.
- \_\_\_ 7. I am satisfied with my current life.
- \_\_\_ 8. My current life is ideal for me.
- \_\_\_ 9. The current conditions of my life are excellent.
- \_\_\_ 10. I have the important things I want right now.
- \_\_\_ 11. There will be nothing that I will want to change about my future.
- \_\_\_ 12. I will be satisfied with my life in the future.
- \_\_\_ 13. I expect my future life will be ideal for me.
- \_\_\_ 14. The conditions of my future life will be excellent.
- \_\_\_ 15. I will have the important things I want in the future.

**Appendix H: Temporal Satisfaction With Life Scale (Afrikaans)****Meetinstrument vir tydsgebonde lewensbevreëdiging  
(TSWLS – Temporal Satisfaction With Life Scale)**

Hier onder is vyftien stellings waarmee u mag saamstem of waarvan u mag verskil. Hierdie stellings handel oor óf u verlede, óf u hede óf u toekoms. Gebruik die punteskaal van 1 tot 7 hier onder om by elke nommer aan te dui in watter mate u saamstem deur die toepaslike syfer in die spasie voor die betrokke stelling in te vul. Antwoord asseblief openhartig en eerlik. Die sewepunt-skaal werk só:

- 1 = verskil ten sterkste
- 2 = verskil
- 3 = verskil in 'n mate
- 4 = verskil nie óf stem saam nie
- 5 = stem in 'n mate saam
- 6 = stem saam
- 7 = stem heelhartig saam

- \_\_\_ 1. As ek my verlede moes oor hê, sou ek niks daaraan verander nie.
- \_\_\_ 2. Ek is tevrede met hoe my lewe in die verlede verloop het.
- \_\_\_ 3. My lewe soos dit in die verlede was, was vir my ideaal.
- \_\_\_ 4. My lewensomstandighede in die verlede was uitstekend.
- \_\_\_ 5. Ek het in die verlede daardie dinge gehad wat vir my belangrik was.
- \_\_\_ 6. Ek sou niks verander aan my lewe soos dit tans is nie.
- \_\_\_ 7. Ek is tevrede met my lewe soos dit tans is.
- \_\_\_ 8. My lewe soos dit tans is, is vir my ideaal.
- \_\_\_ 9. My huidige lewensomstandighede is uitstekend.
- \_\_\_ 10. Ek het al die belangrike dinge wat ek nou in my lewe wil hê.
- \_\_\_ 11. Daar is niks wat ek aan my toekoms sou wou verander nie.
- \_\_\_ 12. Ek sal tevrede wees met hoe my lewe in die toekoms daar uitsien.
- \_\_\_ 13. Ek reken my lewe sal in die toekoms vir my ideaal wees.
- \_\_\_ 14. My lewensomstandighede in die toekoms sal uitstekend wees.
- \_\_\_ 15. Ek sal in die toekoms die dinge hê wat vir my belangrik is om te hê.

**Appendix I: Gratitude Questionnaire-Six Item Form (English)****The Gratitude Questionnaire-Six Item Form (GQ-6)**

By Michael E. McCullough, Ph.D., Robert A. Emmons, Ph.D., Jo-Ann Tsang, Ph.D.

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1 = strongly disagree

2 = disagree

3 = slightly disagree

4 = neutral

5 = slightly agree

6 = agree

7 = strongly agree

\_\_\_ 1. I have so much in life to be thankful for.

\_\_\_ 2. If I had to list everything that I felt grateful for, it would be a very long list.

\_\_\_ 3. When I look at the world, I don't see much to be grateful for.\*

\_\_\_ 4. I am grateful to a wide variety of people.

\_\_\_ 5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.

\_\_\_ 6. Long amounts of time can go by before I feel grateful to something or someone.\*

\* Items 3 and 6 are reverse-scored

**Appendix J: Gratitude Questionnaire-Six Item Form (Afrikaans)****Sespunt-meetinstrument vir dankbaarheid  
(GQ-6 – Gratitude Questionnaire-Six Item Form)**

Opgestel deur Michael E McCullough (PhD), Robert A Emmons (PhD) en Jo-Ann Tsang (PhD)

Vul 'n syfer langs elke stelling hier onder in om aan te toon in watter mate u daarmee saamstem. Gebruik hierdie punteskaal van 1 tot 7 as riglyn:

- 1 = verskil ten sterkste
- 2 = verskil
- 3 = verskil in 'n mate
- 4 = neutraal
- 5 = stem in 'n mate saam
- 6 = stem saam
- 7 = stem heelhartig saam

- \_\_\_ 1. Ek het soveel in die lewe om oor dankbaar te wees.
- \_\_\_ 2. As ek alles moes opnoem waaroor ek dankbaar is, sou dit 'n baie lang lys wees.
- \_\_\_ 3. Wanneer ek na die wêreld kyk, sien ek nie veel om oor dankbaar te wees nie.\*
- \_\_\_ 4. Daar is 'n groot verskeidenheid mense teenoor wie ek dankbaar voel.
- \_\_\_ 5. Namate ek ouer word, ontdek ek dat ek al groter waardering het vir die mense, gebeure en omstandighede wat deel van my lewensverhaal uitgemaak het.
- \_\_\_ 6. Daar kan soms 'n lang ruk verbygaan voordat ek teenoor iemand of oor iets dankbaar voel.\*

\* By punt 3 en 6 werk die punteskaal andersom.

## **Appendix K: Permission to use TSWLS in MA thesis**

From: Pavot, Bill [Bill.Pavot@smsu.edu]  
Sent: Monday, July 02, 2011 9:10 PM  
To: Nel, Charne <14942933@sun.ac.za>  
Subject: RE: Permission to use TSWLS in MA thesis

Dear Charne:

Thank you for your interest in our research and the Temporal Satisfaction With Life Scale. We would be happy to have you include the TSWLS in your research. There is no charge or fee for the use of the scale. We only ask that you acknowledge the source article as you would any other reference. You are free to use the scale as you would like.

Best of luck on your research. If possible, could you send a brief summary of your findings with the scale when you have completed your research? We are always interested in the performance of the scale.

Good Luck,

Bill Pavot

## Appendix L: Informed Consent Form (Retirement village) – Late Adulthood (English)



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvennoot • your knowledge partner

### STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

---

#### **Life Satisfaction and Gratitude in Early and Late Adulthood**

You are asked to participate in a research study conducted by Charne Nel, from the Psychology Department at Stellenbosch University. The results will be contributed to a thesis. You were selected as a possible participant because you fit the criteria that make you eligible to participate in this study.

#### **1. PURPOSE OF THE STUDY**

To investigate whether there are significant differences between individuals in early and late adulthood regarding the following subjective well-being variables: global life satisfaction, temporal dimensions (past, present and future) of life satisfaction, gratitude, and satisfaction with health.

#### **2. PROCEDURES**

If you volunteer to participate in this study, we would ask you to do the following things:

Fill out five questionnaires in the following order

- 1) Biographical questionnaire
- 2) The Satisfaction With Life Scale (SWLS)
- 3) The Temporal Satisfaction With Life Scale (TSWLS)
- 4) The Gratitude Questionnaire-Six Item Form (GQ-6)
- 5) The Health Satisfaction Question

The filling out of the questionnaires should take approximately 10 minutes to complete. You will only be asked to fill out the questionnaires once.

Please fill out you the five questionnaires during the appointment that has been arranged at your place of residence. During your appointment, you will also be subjected to a cognitive screen called the Mini Mental State Examination (MMSE). The results of the cognitive screening will not be made available to you directly; instead, if cognitive dysfunction is detected by the MMSE, permission is asked to inform the matron of your retirement village, as well as write a report to your home doctor who may decide to ask for further professional/medical investigations if he/she so decides. The report will be written by a clinical psychologist, who will also explain the nature of it with your home doctor telephonically.

Please indicate below (Y= Yes; N= No) if you give permission to the researcher to inform the matron if the result of your MMSE detects cognitive dysfunction (*Please tick appropriate box*):

<input type="checkbox"/> Y	<input type="checkbox"/> N
----------------------------	----------------------------

Please indicate below (Y= Yes; N= No) if you give permission to the researcher to inform your home doctor if the result of your MMSE detects cognitive dysfunction (*Please tick appropriate box*):

<input type="checkbox"/> Y	<input type="checkbox"/> N
----------------------------	----------------------------

### **3. POTENTIAL RISKS AND DISCOMFORTS**

If you experience negative emotions or discomforts that you feel warrants the attention of a clinical psychologist, please do not hesitate to contact the researcher (Charné Nel). The researcher will ensure that the clinical psychologist assigned to this study (Dr. Charl Nortje) is contacted immediately and that the matron of your respective retirement village is informed. A meeting will be arranged between you and the clinical psychologist in order to attend to the negative emotions or discomfort you experienced as a result of this study.

### **4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

There are no benefits to you personally in this study, but there will be substantial benefits to society. This study will enhance the knowledge psychologists have regarding the positive dimensions to human behaviour. It will emphasize the importance of nurturing human strengths and virtues, as treatment is not just fixing what is broken, but nurturing what is best.

You may find the research interesting, and may be informed of the general findings of this study.

### **5. PAYMENT FOR PARTICIPATION**

There is no payment involved for participating in this study

### **6. CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by keeping all questionnaires in a safe at the residence of the researcher, and on the researcher's private computer (protected by a password). You will not be identifiable in the publication of this research.

### **7. PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

### **8. IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact **Charné Nel 082 711 0477**, or **Dr. Charl Nortje 083 582 3843**.

### **9. RIGHTS OF RESEARCH SUBJECTS**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

## 10. RESULTS OF STUDY

Once the research has been carried out, the results will be documented in the form of a master's thesis. Your individual responses will not be given back to or discussed with you, but if you are interested in the final results please feel free to contact the researcher. A meeting will be arranged where the broad findings of the study will be discussed.

Please indicate below (with an X) if you would like to be included in the meeting where results of the study will be discussed:

**Yes**, I want to come to the meeting:

**No**, I would not like to come to the meeting:

\* If you marked "**No**", you are welcome to change your mind at any stage by contacting the researcher prior to the meeting.

<b>SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE</b>
--

The information above was described to [*me/the subject/the participant*] by Charne Nel in [*Afrikaans/English/Xhosa/other*] and [*I am/the subject is/the participant is*] in command of this language or it was satisfactorily translated to [*me/him/her*]. [*I/the participant/the subject*] was given the opportunity to ask questions and these questions were answered to [*my/his/her*] satisfaction.

*[I hereby consent voluntarily to participate in this study/I hereby consent that the subject/participant may participate in this study. ]* I have been given a copy of this form.

\_\_\_\_\_  
**Name of Subject/Participant**

\_\_\_\_\_  
**Name of Legal Representative (if applicable)**

\_\_\_\_\_  
**Signature of Subject/Participant or Legal Representative**

\_\_\_\_\_  
**Date**

<b>SIGNATURE OF INVESTIGATOR</b>
----------------------------------

I declare that I explained the information given in this document to \_\_\_\_\_ [*name of the subject/participant*] and/or [his/her] representative \_\_\_\_\_ [*name of the representative*]. [*He/she*] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/\*English/\*Xhosa/\*Other*] and [*no translator was used/this conversation was translated into* \_\_\_\_\_ by \_\_\_\_\_].

\_\_\_\_\_  
**Signature of Investigator**

\_\_\_\_\_  
**Date**

## Appendix M: Informed Consent Form (Retirement village) – Late Adulthood (Afrikaans)



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvenoot • your knowledge partner

### UNIVERSITEIT STELLENBOSCH INWILLIGING OM DEEL TE NEEM AAN NAVORSING

---

#### **Lewensbevrediging en dankbaarheid in die vroeë en laat volwasse jare**

U word hiermee gevra om deel te neem aan 'n navorsingstudie wat deur Charné Nel van die Departement Sielkunde aan die Universiteit Stellenbosch uitgevoer word. Die uitslag sal in 'n tesis gebruik word. U is as 'n moontlike deelnemer aan die studie uitgekies omdat u voldoen aan die vereistes wat 'n persoon geskik maak om aan hierdie studie deel te neem.

#### **1. DOEL VAN DIE STUDIE**

Om te ondersoek of mense in hulle vroeë volwasse jare beduidend verskil van dié in hulle laat volwasse jare wat die volgende subjektiewe bepalers van welstand betref: oorkoepelende lewensbevrediging, die tydsgebonde dimensies (verlede, hede en toekoms) van lewensbevrediging, dankbaarheid, en tevredenheid met gesondheid.

#### **2. PROSEDURE**

Indien u inwillig om aan die studie deel te neem, vra ons dat u die volgende moet doen:

Vul asseblief die vyf vraelyste in die volgende volgorde in:

- 6) biologiese vraelys
- 7) die meetinstrument vir lewensbevrediging (SWLS – Satisfaction With Life Scale) die meetinstrument vir tydsgebonde lewensbevrediging (TSWLS – Temporal Satisfaction With Life Scale)
- 8) die meetinstrument vir dankbaarheid (GQ-6 – Gratitude Questionnaire-Six Item Form)
- 9) die meetinstrument vir tevredenheid met gesondheid (Health Satisfaction Question)

Dit behoort u ongeveer tien minute te neem om die vraelyste in te vul. U sal nie meer as een keer gevra word om hierdie vraelyste in te vul nie.

Vul asseblief die vyf vraelyste in gedurende die afspraak wat by u woonplek gereël is. 'n Kognitiewe siftingstoets, bekend as die MMSE (Mini Mental State Examination), sal gedurende die afspraak op u uitgevoer word. Die uitslag van hierdie siftingstoets sal nie aan u self bekend gemaak word nie. In plaas daarvan gaan ons vooraf u toestemming vra om, sou die MMSE wel kognitiewe wanfunksionering by u uitwys, die matrone van u aftreeoord in kennis te stel asook om 'n verslag te skryf aan u huisdokter, wat sou kon besluit om verdere professionele of mediese ondersoeke aan te vra. Die verslag sal opgestel word deur 'n kliniese sielkundige, wat die aard van die wanfunksionering ook telefonies aan u huisdokter sal verduidelik.

Dui asseblief hier onder aan (J = Ja; N = Nee) of u toestem dat die navorser die matrone mag inlig sou die uitslag van u MMSE kognitiewe wanfunksionering uitwys (*merk asseblief die toepaslike blokke*):

J       N

Dui asseblief hier onder aan (J = Ja; N = Nee) of u toestem dat die navorser u huisdokter mag inlig sou die uitslag van u MMSE kognitiewe wanfunksionering uitwys (*merk asseblief die toepaslike blokke*):

J       N

### 3. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Sou u negatiewe gevoelens of ongemak ervaar wat u reken die aandag van 'n kliniese sielkundige regverdig, sal u ingelig word dat u baie welkom is om met die navorser (Charné Nel) kontak te maak; sy sal die matrone van jou aftreeoord onmiddellik in kennis stel. Die navorser sal verseker dat daar sonder versuim in verbinding getree word met die kliniese sielkundige wat aan hierdie studie toegewys is (Dr. Charl Nortjé). 'n Ontmoeting tussen u en die kliniese sielkundige sal gereël word ten einde aandag te gee aan die negatiewe gevoelens of ongemak wat u weens hierdie studie ervaar het.

### 4. MOONTLIKE VOORDELE VIR PROEFPERSONE EN/OF VIR DIE SAMELEWING

Hierdie studie hou geen voordele vir u persoonlik in nie, maar sal tot aansienlike voordeel van die samelewing wees. Die studie sal sielkundiges se kennis oor die positiewe hoedanighede van menslike gedrag verbeter. Dit sal ook beklemtoon hoe belangrik dit is om mense se sterk punte en deugde te koester, want behandeling is nie net om reg te maak wat stukkend is nie, maar ook om dit wat baie goed is, met sorg te bevorder.

Die navorsing mag dalk vir u interessant wees, en die algemene bevindings van hierdie studie mag aan u bekend gemaak word.

### 5. VERGOEDING VIR DEELNAME

Daar is geen vergoeding vir deelname aan hierdie studie nie.

### 6. VERTROULIKHEID

Enige inligting wat deur middel van die navorsing verkry word en wat met u in verband gebring kan word, sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Vertroulikheid sal gehandhaaf word deur alle vraelyste in 'n kluis in die navorser se woonplek te bewaar, asook op die navorser se persoonlike rekenaar (wat deur 'n wagwoord beskerm word). Dit sal nie moontlik wees om u uit te ken uit die gepubliseerde navorsing nie.

### 7. DEELNAME EN ONTTREKING

U sal gedurende die vaste afspraak ingelig word oor die aard, oogmerk en werkwyse van die studie, voordat toetse uitgevoer en vraelyste ingevul word. U sal voorsien word van 'n geskrewe vorm (in Afrikaans óf Engels) om u ingeligte toestemming te verleen, wat u sal moet onderteken as u wil instem om deel te neem.

U kan self besluit of u aan die studie wil deelneem of nie. Indien u inwillig om aan die studie deel te neem, kan u te eniger tyd daaraan onttrek sonder enige nadelige gevolge. U kan ook weier om op

bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Die ondersoeker kan u aan die studie onttrek indien omstandighede dit noodsaaklik maak.

## 8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, staan dit u vry om in verbinding te tree met Charne Nel by 082 711 0477, of Dr. Charl Nortje by 083 582 3843.

## 9. REGTE VAN PROEFPERSONE

U kan te eniger tyd u inwilliging terugtrek en u deelname beëindig, sonder enige nadelige gevolge vir u. Deur deel te neem aan die navorsing doen u geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u vrae het oor u regte as proefpersoon by navorsing, skakel met Me Maléne Fouché [[mfouche@sun.ac.za](mailto:mfouche@sun.ac.za); 021 808 4622] van die Afdeling Navorsingsontwikkeling.

## 10. UITSLAG VAN DIE STUDIE

Nadat die navorsing uitgevoer is, sal die uitslag in die vorm van 'n magistertesis opgeteken word. U se individuele antwoorde sal nie aan u teruggee of met u bespreek word nie, maar as u in die uiteindelijke uitslag belangstel, is u welkom om met die navorser kontak te maak. 'n Afspraak sal dan gereël word waar die algemene bevindings van die studie bespreek kan word.

Dui asseblief hier onder aan (met 'n X) of u graag 'n geleentheid sal wil bywoon waar die uitslae van die studie bespreek word:

**Ja**, ek wil graag die bespreking bywoon:

**Nee**, ek wil nie die bespreking bywoon nie:

\* As u "**Nee**" gemerk het, is u welkom om te enige tyd voor die bespreking van plan te verander en die navorser daarvan in te lig.

<b>VERKLARING DEUR PROEFPERSOON OF SY/HAAR REGSVERTENWOORDIGER</b>
--

Die bostaande inligting is aan my, [*naam van proefpersoon/deelnemer*], gegee en verduidelik deur Charne Nel in [*Afrikaans/English/Xhosa/other*] en [*ek is/die proefpersoon is/die deelnemer is*] dié taal magtig of dit is bevredigend vir [*my/hom/haar*] vertaal. [*Ek/die deelnemer/die proefpersoon*] is die geleentheid gebied om vrae te stel en my/sy/haar vrae is tot my/sy/haar bevrediging beantwoord.

[*Ek willig hiermee vrywillig in om deel te neem aan die studie/Ek gee hiermee my toestemming dat die proefpersoon/deelnemer aan die studie mag deelneem.*] 'n Afskrif van hierdie vorm is aan my gegee.

\_\_\_\_\_  
**Naam van proefpersoon/deelnemer**

\_\_\_\_\_  
**Naam van regsverteenvoordiger (indien van toepassing)**

\_\_\_\_\_ **Handtekening van proefpersoon/deelnemer of regsverteenvoordiger**      \_\_\_\_\_ **Datum**

<b>VERKLARING DEUR ONDERSOEKER</b>
------------------------------------

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die proefpersoon/deelnemer*]\_\_\_\_\_ en/of sy/haar regsverteenvoordiger [*naam van die regsverteenvoordiger*]\_\_\_\_\_. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in [*Afrikaans/Engels*] gevoer en [*geen vertaler is gebruik nie/die gesprek is in* \_\_\_\_\_ *vertaal deur* \_\_\_\_\_].

\_\_\_\_\_  
**Handtekening van ondersoeker**

\_\_\_\_\_  
**Datum**

## Appendix N: Informed Consent Form (Independent living) – Late Adulthood (English)



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvennoot • your knowledge partner

### STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

---

#### **Life Satisfaction and Gratitude in Early and Late Adulthood**

You are asked to participate in a research study conducted by Charne Nel, from the Psychology Department at Stellenbosch University. The results will be contributed to a thesis. You were selected as a possible participant because you fit the criteria that make you eligible to participate in this study.

#### **1. PURPOSE OF THE STUDY**

To investigate whether there are significant differences between individuals in early and late adulthood regarding the following subjective well-being variables: global life satisfaction, temporal dimensions (past, present and future) of life satisfaction, gratitude, and satisfaction with health.

#### **2. PROCEDURES**

If you volunteer to participate in this study, we would ask you to do the following things:

Fill out five questionnaires in the following order

- 10) Biographical questionnaire
- 11) The Satisfaction With Life Scale (SWLS)
- 12) The Temporal Satisfaction With Life Scale (TSWLS)
- 13) The Gratitude Questionnaire-Six Item Form (GQ-6)
- 14) The Health Satisfaction Question

The filling out of the questionnaires should take approximately 10 minutes to complete. You will only be asked to fill out the questionnaires once.

Please fill out you the five questionnaires during the appointment that has been arranged at your place of residence. During your appointment, you will also be subjected to a cognitive screen called the Mini Mental State Examination (MMSE). The results of the cognitive screening will not be made available to you directly; instead, if cognitive dysfunction is detected by the MMSE, permission is asked to write a report to your home doctor who may decide to ask for further professional/medical investigations if he/she so decides. The report will be written by a clinical psychologist, who will also explain the nature of it with your home doctor telephonically.

Please indicate below (Y= Yes; N= No) if you give permission to the researcher to inform your home doctor if the result of your MMSE detects cognitive dysfunction (*Please tick appropriate box*):

 Y N

### **3. POTENTIAL RISKS AND DISCOMFORTS**

If you experience negative emotions or discomforts that you feel warrants the attention of a clinical psychologist, please do not hesitate to contact the researcher (Charné Nel). The researcher will ensure that the clinical psychologist assigned to this study (Dr. Charl Nortje) is contacted immediately. A meeting will be arranged between you and the clinical psychologist in order to attend to the negative emotions or discomfort you experienced as a result of this study.

### **4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

There are no benefits to you personally in this study, but there will be substantial benefits to society. This study will enhance the knowledge psychologists have regarding the positive dimensions to human behaviour. It will emphasize the importance of nurturing human strengths and virtues, as treatment is not just fixing what is broken, but nurturing what is best.

You may find the research interesting, and may be informed of the general findings of this study.

### **5. PAYMENT FOR PARTICIPATION**

There is no payment involved for participating in this study

### **6. CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by keeping all questionnaires in a safe at the residence of the researcher, and on the researcher's private computer (protected by a password). You will not be identifiable in the publication of this research.

### **7. PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

### **8. IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact **Charné Nel 082 711 0477**, or **Dr. Charl Nortje 083 582 3843**.

### **9. RIGHTS OF RESEARCH SUBJECTS**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

## 10. RESULTS OF STUDY

Once the research has been carried out, the results will be documented in the form of a master's thesis. Your individual responses will not be given back to or discussed with you, but if you are interested in the final results please feel free to contact the researcher. A meeting will be arranged where the broad findings of the study will be discussed.

Please indicate below (with an X) if you would like to be included in the meeting where results of the study will be discussed:

**Yes**, I want to come to the meeting:

**No**, I would not like to come to the meeting:

\* If you marked "**No**", you are welcome to change your mind at any stage by contacting the researcher prior to the meeting.

<b>SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE</b>
--

The information above was described to [*me/the subject/the participant*] by Charne Nel in [*Afrikaans/English/Xhosa/other*] and [*I am/the subject is/the participant is*] in command of this language or it was satisfactorily translated to [*me/him/her*]. [*I/the participant/the subject*] was given the opportunity to ask questions and these questions were answered to [*my/his/her*] satisfaction.

*[I hereby consent voluntarily to participate in this study/I hereby consent that the subject/participant may participate in this study.]* I have been given a copy of this form.

\_\_\_\_\_  
**Name of Subject/Participant**

\_\_\_\_\_  
**Name of Legal Representative (if applicable)**

\_\_\_\_\_  
**Signature of Subject/Participant or Legal Representative**

\_\_\_\_\_  
**Date**

<b>SIGNATURE OF INVESTIGATOR</b>
----------------------------------

I declare that I explained the information given in this document to \_\_\_\_\_ [*name of the subject/participant*] and/or [*his/her*] representative \_\_\_\_\_ [*name of the representative*]. [*He/she*] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/\*English/\*Xhosa/\*Other*] and [*no translator was used/this conversation was translated into \_\_\_\_\_ by \_\_\_\_\_*].

\_\_\_\_\_  
**Signature of Investigator**

\_\_\_\_\_  
**Date**

## Appendix O: Informed Consent Form (Independent living) – Late Adulthood (Afrikaans)



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY  
jou kennisvennoot • your knowledge partner

### UNIVERSITEIT STELLENBOSCH INWILLIGING OM DEEL TE NEEM AAN NAVORSING

---

#### **Lewensbevrediging en dankbaarheid in die vroeë en laat volwasse jare**

U word hiermee gevra om deel te neem aan 'n navorsingstudie wat deur Charné Nel van die Departement Sielkunde aan die Universiteit Stellenbosch uitgevoer word. Die uitslag sal in 'n tesis gebruik word. U is as 'n moontlike deelnemer aan die studie uitgekies omdat u voldoen aan die vereistes wat 'n persoon geskik maak om aan hierdie studie deel te neem.

#### **1. DOEL VAN DIE STUDIE**

Om te ondersoek of mense in hulle vroeë volwasse jare beduidend verskil van dié in hulle laat volwasse jare wat die volgende subjektiewe bepalers van welstand betref: oorkoepelende lewensbevrediging, die tydsgebonde dimensies (verlede, hede en toekoms) van lewensbevrediging, dankbaarheid, en tevredenheid met gesondheid.

#### **2. PROSEDURE**

Indien u inwillig om aan die studie deel te neem, vra ons dat u die volgende moet doen:

Vul asseblief die vyf vraelyste in die volgende volgorde in:

- 15) biologiese vraelys
- 16) die meetinstrument vir lewensbevrediging (SWLS – Satisfaction With Life Scale) die meetinstrument vir tydsgebonde lewensbevrediging (TSWLS – Temporal Satisfaction With Life Scale)
- 17) die meetinstrument vir dankbaarheid (GQ-6 – Gratitude Questionnaire-Six Item Form)
- 18) die meetinstrument vir tevredenheid met gesondheid (Health Satisfaction Question)

Dit behoort u ongeveer tien minute te neem om die vraelyste in te vul. U sal nie meer as een keer gevra word om hierdie vraelyste in te vul nie.

Vul asseblief die vyf vraelyste in gedurende die afspraak wat by u woonplek gereël is. 'n Kognitiewe siftingstoets, bekend as die MMSE (Mini Mental State Examination), sal gedurende die afspraak op u uitgevoer word. Die uitslag van hierdie siftingstoets sal nie aan u self bekend gemaak word nie. In plaas daarvan gaan ons vooraf u toestemming vra om, sou die MMSE wel kognitiewe wanfunksionering by u uitwys, 'n verslag te skryf aan u huisdokter, wat sou kon besluit om verdere professionele of mediese ondersoeke aan te vra. Die verslag sal opgestel word deur 'n kliniese sielkundige, wat die aard van die wanfunksionering ook telefonies aan u huisdokter sal verduidelik.

Dui asseblief hier onder aan (J = Ja; N = Nee) of u toestem dat die navorser u huisdokter mag inlig sou die uitslag van u MMSE kognitiewe wanfunksionering uitwys (*merk asseblief die toepaslike blokke*):

 J N

### **3. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID**

Sou u negatiewe gevoelens of ongemak ervaar wat u reken die aandag van 'n kliniese sielkundige regverdig, sal u ingelig word dat u baie welkom is om met die navorser (Charné Nel) kontak te maak. Die navorser sal verseker dat daar sonder versuim in verbinding getree word met die kliniese sielkundige wat aan hierdie studie toegewys is (Dr. Charl Nortjé). 'n Ontmoeting tussen u en die kliniese sielkundige sal gereël word ten einde aandag te gee aan die negatiewe gevoelens of ongemak wat u weens hierdie studie ervaar het.

### **4. MOONTLIKE VOORDELE VIR PROEFPERSONE EN/OF VIR DIE SAMELEWING**

Hierdie studie hou geen voordele vir u persoonlik in nie, maar sal tot aansienlike voordeel van die samelewing wees. Die studie sal sielkundiges se kennis oor die positiewe hoedanighede van menslike gedrag verbeter. Dit sal ook beklemtoon hoe belangrik dit is om mense se sterk punte en deugde te koester, want behandeling is nie net om reg te maak wat stukkend is nie, maar ook om dit wat baie goed is, met sorg te bevorder.

Die navorsing mag dalk vir u interessant wees, en die algemene bevindings van hierdie studie mag aan u bekend gemaak word.

### **5. VERGOEDING VIR DEELNAME**

Daar is geen vergoeding vir deelname aan hierdie studie nie.

### **6. VERTROULIKHEID**

Enige inligting wat deur middel van die navorsing verkry word en wat met u in verband gebring kan word, sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Vertroulikheid sal gehandhaaf word deur alle vraelyste in 'n kluis in die navorser se woonplek te bewaar, asook op die navorser se persoonlike rekenaar (wat deur 'n wagwoord beskerm word). Dit sal nie moontlik wees om u uit te ken uit die gepubliseerde navorsing nie.

### **7. DEELNAME EN ONTTREKING**

U sal gedurende die vaste afspraak ingelig word oor die aard, oogmerk en werkwyse van die studie, voordat toetse uitgevoer en vraelyste ingevul word. U sal voorsien word van 'n geskrewe vorm (in Afrikaans óf Engels) om u ingeligte toestemming te verleen, wat u sal moet onderteken as u wil instem om deel te neem.

U kan self besluit of u aan die studie wil deelneem of nie. Indien u inwillig om aan die studie deel te neem, kan u te eniger tyd daaraan onttrek sonder enige nadelige gevolge. U kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Die ondersoeker kan u aan die studie onttrek indien omstandighede dit noodsaaklik maak.

## 8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, staan dit u vry om in verbinding te tree met Charne Nel by 082 711 0477, of Dr. Charl Nortje by 083 582 3843.

## 9. REGTE VAN PROEFPERSONE

U kan te eniger tyd u inwilliging terugtrek en u deelname beëindig, sonder enige nadelige gevolge vir u. Deur deel te neem aan die navorsing doen u geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u vrae het oor u regte as proefpersoon by navorsing, skakel met Me Maléne Fouché [[mfouche@sun.ac.za](mailto:mfouche@sun.ac.za); 021 808 4622] van die Afdeling Navorsingsontwikkeling.

## 10. UITSLAG VAN DIE STUDIE

Nadat die navorsing uitgevoer is, sal die uitslag in die vorm van 'n magistrertesis opgeteken word. U se individuele antwoorde sal nie aan u teruggegee of met u bespreek word nie, maar as u in die uiteindelijke uitslag belangstel, is u welkom om met die navorser kontak te maak. 'n Afspraak sal dan gereël word waar die algemene bevindings van die studie bespreek kan word.

Dui asseblief hier onder aan (met 'n X) of u graag 'n geleentheid sal wil bywoon waar die uitslae van die studie bespreek word:

**Ja**, ek wil graag die bespreking bywoon:

**Nee**, ek wil nie die bespreking bywoon nie:

\* As u "**Nee**" gemerk het, is u welkom om te enige tyd voor die bespreking van plan te verander en die navorser daarvan in te lig.

<b>VERKLARING DEUR PROEFPERSOON OF SY/HAAR REGSVERTENWOORDIGER</b>
--

Die bostaande inligting is aan my, [*naam van proefpersoon/deelnemer*], gegee en verduidelik deur Charne Nel in [*Afrikaans/English/Xhosa/other*] en [*ek is/die proefpersoon is/die deelnemer is*] dié taal magtig of dit is bevredigend vir [*my/hom/haar*] vertaal. [*Ek/die deelnemer/die proefpersoon*] is die geleentheid gebied om vrae te stel en my/sy/haar vrae is tot my/sy/haar bevrediging beantwoord.

[*Ek willig hiermee vrywillig in om deel te neem aan die studie/Ek gee hiermee my toestemming dat die proefpersoon/deelnemer aan die studie mag deelneem.*] 'n Afskrif van hierdie vorm is aan my gegee.

\_\_\_\_\_

**Naam van proefpersoon/deelnemer**

\_\_\_\_\_

**Naam van regsverteenvoordiger (indien van toepassing)**

\_\_\_\_\_

**Handtekening van proefpersoon/deelnemer of regsverteenvoordiger      Datum**

<b>VERKLARING DEUR ONDERSOEKER</b>
------------------------------------

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die proefpersoon/deelnemer*]\_\_\_\_\_en/of sy/haar regsverteenvoordiger [*naam van die regsverteenvoordiger*]\_\_\_\_\_. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in [*Afrikaans/Engels*] gevoer en [*geen vertaler is gebruik nie/die gesprek is in \_\_\_\_\_ vertaal deur \_\_\_\_\_*].

\_\_\_\_\_

**Handtekening van ondersoeker**

\_\_\_\_\_

**Datum**

## Appendix P: Informed Consent Form – Young Adulthood (English)



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvenoot • your knowledge partner

---

### STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

---

#### **Life Satisfaction and Gratitude in Early and Late Adulthood**

You are asked to participate in a research study conducted by Charné Nel, from the Psychology Department at Stellenbosch University. The results will be contributed to a thesis. You were selected as a possible participant because you fit the criteria that make you eligible to participate in this study.

#### **1. PURPOSE OF THE STUDY**

To investigate whether there are significant differences between individuals in early and late adulthood regarding the following subjective well-being variables: global life satisfaction, temporal dimensions (past, present and future) of life satisfaction, gratitude, and satisfaction with health.

#### **2. PROCEDURES**

If you volunteer to participate in this study, we would ask you to do the following things:

Fill out five questionnaires in the following order

- 19) Biographical questionnaire
- 20) The Satisfaction With Life Scale (SWLS)
- 21) The Temporal Satisfaction With Life Scale (TSWLS)
- 22) The Gratitude Questionnaire-Six Item Form (GQ-6)
- 23) The Health Satisfaction Question

The filling out of the questionnaires should take approximately 10 minutes to complete. You will only be asked to fill out the questionnaires once.

Please collect the questionnaires at the exit of the classroom/lecture hall, fill them out before your next class, and hand them back to the researcher at the end of your next class at the exit of the classroom/lecture hall. You are instructed not to fill out the questionnaires during lecture time.

#### **3. POTENTIAL RISKS AND DISCOMFORTS**

If you experience negative emotions or discomforts that you feel warrants the attention of a clinical psychologist, please do not hesitate to contact the researcher (Charné Nel). The researcher will ensure that the clinical psychologist assigned to this study (Dr. Charl Nortje) is contacted immediately. A meeting will be arranged between you and the clinical psychologist in order to attend to the negative emotions or discomfort you experienced as a result of this study.

#### **4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

There are no benefits to you personally in this study, but there will be substantial benefits to society. This study will enhance the knowledge psychologists have regarding the positive dimensions to human behaviour. It will emphasize the importance of nurturing human strengths and virtues, as treatment is not just fixing what is broken, but nurturing what is best.

## 5. PAYMENT FOR PARTICIPATION

There is no payment involved for participating in this study

## 6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by keeping all questionnaires in a safe at the residence of the researcher, and on the researcher's private computer (protected by a password). You will not be identifiable in the publication of this research.

## 7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

## 8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact **Charné Nel 082 711 0477**, or **Dr. Charl Nortje 083 582 3843**.

## 9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

## 10. RESULTS OF STUDY

Once the research has been carried out, the results will be documented in the form of a master's thesis. Your individual responses will not be given back to or discussed with you, but if you are interested in the final results please feel free to contact the researcher. A meeting will be arranged where the broad findings of the study will be discussed.

Please indicate below (with an X) if you would like to be included in the meeting where results of the study will be discussed:

**Yes**, I want to come to the meeting:

**No**, I would not like to come to the meeting:

\* If you marked "**No**", you are welcome to change your mind at any stage by contacting the researcher prior to the meeting.

<b>SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE</b>
--

The information above was described to [*me/the subject/the participant*] by Charne Nel in [*Afrikaans/English/Xhosa/other*] and [*I am/the subject is/the participant is*] in command of this language or it was satisfactorily translated to [*me/him/her*]. [*I/the participant/the subject*] was given the opportunity to ask questions and these questions were answered to [*my/his/her*] satisfaction.

*[I hereby consent voluntarily to participate in this study/I hereby consent that the subject/participant may participate in this study. ]* I have been given a copy of this form.

\_\_\_\_\_  
**Name of Subject/Participant**

\_\_\_\_\_  
**Name of Legal Representative (if applicable)**

\_\_\_\_\_  
**Signature of Subject/Participant or Legal Representative**

\_\_\_\_\_  
**Date**

<b>SIGNATURE OF INVESTIGATOR</b>
----------------------------------

I declare that I explained the information given in this document to \_\_\_\_\_ [*name of the subject/participant*] and/or [*his/her*] representative \_\_\_\_\_ [*name of the representative*]. [*He/she*] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/\*English/\*Xhosa/\*Other*] and [*no translator was used/this conversation was translated into \_\_\_\_\_ by \_\_\_\_\_*].

\_\_\_\_\_  
**Signature of Investigator**

\_\_\_\_\_  
**Date**

## Appendix Q: Informed Consent Form – Young Adulthood (Afrikaans)



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY  
jou kennisvennoot • your knowledge partner

### UNIVERSITEIT STELLENBOSCH INWILLIGING OM DEEL TE NEEM AAN NAVORSING

---

#### **Lewensbevrediging en dankbaarheid in die vroeë en laat volwasse jare**

U word hiermee gevra om deel te neem aan 'n navorsingstudie wat deur Charné Nel van die Departement Sielkunde aan die Universiteit Stellenbosch uitgevoer word. Die uitslag sal in 'n tesis gebruik word. U is as 'n moontlike deelnemer aan die studie uitgekies omdat u voldoen aan die vereistes wat 'n persoon geskik maak om aan hierdie studie deel te neem.

#### **1. DOEL VAN DIE STUDIE**

Om te ondersoek of mense in hulle vroeë volwasse jare beduidend verskil van dié in hulle laat volwasse jare wat die volgende subjektiewe bepalers van welstand betref: oorkoepelende lewensbevrediging, die tydsgebonde dimensies (verlede, hede en toekoms) van lewensbevrediging, dankbaarheid, en tevredenheid met gesondheid.

#### **2. PROSEDURE**

Indien u inwillig om aan die studie deel te neem, vra ons dat u die volgende moet doen:

Vul asseblief die vyf vraelyste in die volgende volgorde in:

- 24) biologiese vraelys
- 25) die meetinstrument vir lewensbevrediging (SWLS – Satisfaction With Life Scale) die meetinstrument vir tydsgebonde lewensbevrediging (TSWLS – Temporal Satisfaction With Life Scale)
- 26) die meetinstrument vir dankbaarheid (GQ-6 – Gratitude Questionnaire-Six Item Form)
- 27) die meetinstrument vir tevredenheid met gesondheid (Health Satisfaction Question)

Dit behoort u ongeveer tien minute te neem om die vraelyste in te vul. U sal nie meer as een keer gevra word om hierdie vraelyste in te vul nie.

Kom kry asseblief die vraelyste by die uitgang van die klaskamer/lesingsaal, vul hulle voor u volgende klas in, en besorg hulle aan die einde van u volgende klas terug aan die navorser, by die uitgang van die klaskamer/lesingsaal. Moenie die vraelyste tydens 'n lesing invul nie.

#### **3. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID**

Sou u negatiewe gevoelens of ongemak ervaar wat u reken die aandag van 'n kliniese sielkundige regverdig, sal u ingelig word dat u baie welkom is om met die navorser (Charné Nel) kontak te maak; sy sal die Matron van jou aftreeoord onmiddellik in kennis stel. Die navorser sal verseker dat daar sonder versuim in verbinding getree word met die kliniese sielkundige wat aan hierdie studie toegewys is (Dr. Charl Nortjé). 'n Ontmoeting tussen u en die kliniese sielkundige sal gereël word ten einde aandag te gee aan die negatiewe gevoelens of ongemak wat u weens hierdie studie ervaar het.

#### **4. MOONTLIKE VOORDELE VIR PROEFPERSONE EN/OF VIR DIE SAMELEWING**

Hierdie studie hou geen voordele vir u persoonlik in nie, maar sal tot aansienlike voordeel van die samelewing wees. Die studie sal sielkundiges se kennis oor die positiewe hoedanighede van menslike

gedrag verbeter. Dit sal ook beklemtoon hoe belangrik dit is om mense se sterk punte en deugde te koester, want behandeling is nie net om reg te maak wat stukkend is nie, maar ook om dit wat baie goed is, met sorg te bevorder.

Die navorsing mag dalk vir u interessant wees, en die algemene bevindings van hierdie studie mag aan u bekend gemaak word.

## 5. VERGOEDING VIR DEELNAME

Daar is geen vergoeding vir deelname aan hierdie studie nie.

## 6. VERTROUOLIKHEID

Enige inligting wat deur middel van die navorsing verkry word en wat met u in verband gebring kan word, sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Vertroulikheid sal gehandhaaf word deur alle vraelyste in 'n kluis in die navorser se woonplek te bewaar, asook op die navorser se persoonlike rekenaar (wat deur 'n wagwoord beskerm word). Dit sal nie moontlik wees om u uit te ken uit die gepubliseerde navorsing nie.

## 7. DEELNAME EN ONTTREKKING

U kan self besluit of u aan die studie wil deelneem of nie. Indien u inwillig om aan die studie deel te neem, kan u te eniger tyd daaraan onttrek sonder enige nadelige gevolge. U kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Die ondersoeker kan u aan die studie onttrek indien omstandighede dit noodsaaklik maak. .

## 8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, staan dit u vry om in verbinding te tree met Charne Nel by 082 711 0477, of Dr. Charl Nortje by 083 582 3843.

## 9. REGTE VAN PROEFPERSONE

U kan te eniger tyd u inwilliging terugtrek en u deelname beëindig, sonder enige nadelige gevolge vir u. Deur deel te neem aan die navorsing doen u geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u vrae het oor u regte as proefpersoon by navorsing, skakel met Me Maléne Fouché [[mfouche@sun.ac.za](mailto:mfouche@sun.ac.za); 021 808 4622] van die Afdeling Navorsingsontwikkeling.

## 10. UITSLAG VAN DIE STUDIE

Nadat die navorsing uitgevoer is, sal die uitslag in die vorm van 'n magistrertesis opgeteken word. U se individuele antwoorde sal nie aan u teruggegee of met u bespreek word nie, maar as u in die uiteindelijke uitslag belangstel, is u welkom om met die navorser kontak te maak. 'n Afspraak sal dan gereël word waar die algemene bevindings van die studie bespreek kan word.

Dui asseblief hier onder aan (met 'n X) of u graag 'n geleentheid sal wil bywoon waar die uitslae van die studie bespreek word:

**Ja**, ek wil graag die bespreking bywoon:

**Nee**, ek wil nie die bespreking bywoon nie:

\* As u "Nee" gemerk het, is u welkom om te eniger tyd voor die bespreking van plan te verander en die navorser daarvan in te lig.

**VERKLARING DEUR PROEFPERSOON OF SY/HAAR REGSVERTENWOORDIGER**

Die bostaande inligting is aan my, [*naam van proefpersoon/deelnemer*], gegee en verduidelik deur Charne Nel in [*Afrikaans/English/Xhosa/other*] en [*ek is/die proefpersoon is/die deelnemer is*] dié taal magtig of dit is bevredigend vir [*my/hom/haar*] vertaal. [*Ek/die deelnemer/die proefpersoon*] is die geleentheid gebied om vrae te stel en my/sy/haar vrae is tot my/sy/haar bevrediging beantwoord.

[*Ek willig hiermee vrywillig in om deel te neem aan die studie/Ek gee hiermee my toestemming dat die proefpersoon/deelnemer aan die studie mag deelneem.*] 'n Afskrif van hierdie vorm is aan my gegee.

\_\_\_\_\_  
**Naam van proefpersoon/deelnemer**

\_\_\_\_\_  
**Naam van regsverteenvoordiger (indien van toepassing)**

\_\_\_\_\_  
**Handtekening van proefpersoon/deelnemer of regsverteenvoordiger**      **Datum**

**VERKLARING DEUR ONDERSOEKER**

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die proefpersoon/deelnemer*] en/of sy/haar regsverteenvoordiger [*naam van die regsverteenvoordiger*]. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in [*Afrikaans/Engels*] gevoer en [*geen vertaler is gebruik nie/die gesprek is in \_\_\_\_\_ vertaal deur \_\_\_\_\_*].

\_\_\_\_\_  
**Handtekening van ondersoeker**

\_\_\_\_\_  
**Datum**

## Appendix R: US REC Letter of of Ethical Clearance



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvenoot • your knowledge partner

4 July 2011

Tel.: 021 - 808-9183  
Enquiries: Sidney Engelbrecht  
Email: [sidney@sun.ac.za](mailto:sidney@sun.ac.za)

**Reference No. 560/2011**

Ms C Nel  
Department of Psychology  
University of Stellenbosch  
**STELLENBOSCH**  
7602

Ms C Nel

### LETTER OF ETHICS CLEARANCE

With regards to your application, I would like to inform you that the project, *Life satisfaction and gratitude in Young and Late Adulthood*, has been approved on condition that:

1. The researcher/s remain within the procedures and protocols indicated in the proposal;
2. The researcher/s stay within the boundaries of applicable national legislation, institutional guidelines, and applicable standards of scientific rigor that are followed within this field of study and that
3. Any substantive changes to this research project should be brought to the attention of the Ethics Committee with a view to obtain ethical clearance for it.

We wish you success with your research activities.

Best regards



*Sidney Engelbrecht*  
MR SF ENGELBRECHT

Secretary: Research Ethics Committee: Human Research (Humanoria)

Afdeling Navorsingsontwikkeling • Division for Research Development

Privaatsak/Private Bag X1 • Matieland 7602 • Suid-Afrika/South Africa

Tel: +27 21 808 9184 • Faks/Fax: +27 21 808 4537

[www.sun.ac.za/research](http://www.sun.ac.za/research)

**Appendix S: Matron/Manager Consent Form (English)**

UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvennoot • your knowledge partner

**STELLENBOSCH UNIVERSITY  
CONSENT TO PARTICIPATE IN RESEARCH**

---

**Life Satisfaction and Gratitude in Early and Late Adulthood**

You are asked to give consent for allowing the residents at \_\_\_\_\_ (retirement village) to voluntarily participate in a research study conducted by Charné Nel, from the Psychology Department at Stellenbosch University. The results will be contributed to a thesis. The residents at your retirement village were selected as possible participants because they fit the criteria that make them eligible to participate in this study.

*\* Note: This form is also available in Afrikaans. Please notify the researcher if you would prefer to have the Afrikaans version.*

**1. PURPOSE OF THE STUDY**

To investigate whether there are significant differences between individuals in early and late adulthood regarding the following subjective well-being variables: global life satisfaction, temporal dimensions (past, present and future) of life satisfaction, gratitude, and satisfaction with health.

**2. PROCEDURES**

The residents at your retirement village, who volunteer to participate in this study, will be asked to do the following things:

Fill out five questionnaires in the following order

- 28) Biographical questionnaire
- 29) The Satisfaction With Life Scale (SWLS)
- 30) The Temporal Satisfaction With Life Scale (TSWLS)
- 31) The Gratitude Questionnaire-Six Item Form (GQ-6)
- 32) The Health Satisfaction Question

The filling out of the questionnaires should take approximately 10 minutes to complete. The residents will only be asked to fill out the questionnaires once.

The residents will be asked to fill out the five questionnaires during an arranged appointment which will take place at their place of residence at your retirement village. To arrange an appointment, the researcher requests from you a **list of telephone numbers of all the residents at your retirement village**. If possible, it is also requested that you **exclude from the list of telephone numbers any residents with pre-existing cognitive dysfunction** (e.g. Dementia, Alzheimer's), as this study requires cognitively sound participants in the late adulthood category (60-75 years old).

During the appointment, the resident will be subjected to a cognitive screen called the Mini Mental State Examination (MMSE). The results of the cognitive screening will not be made available to the resident directly; instead, if cognitive dysfunction is detected by the MMSE, permission is asked to write a report to their home doctor who may decide to ask for further professional/medical investigations if he/she so decides. You/the matron will be informed immediately if cognitive

dysfunction is detected in the resident/s (**providing, of course, that he/she gives consent to this**), and the resident/s will be asked to give consent to write a report to the home doctor if cognitive dysfunction is detected. The report will be written by a clinical psychologist, who will also explain the nature of it with the resident's home doctor telephonically. The researcher requests from you the **details (i.e. name and telephone number) of each resident's home doctor**.

Please indicate below (Y= Yes; N= No) if you can supply the researcher with the following details (*Please tick appropriate box*):

List of residents' telephone numbers:  Y  N

List of residents' home doctors (if cognitive dysfunction is detected by the MMSE):  Y  N

All questionnaires, as well as the participant informed consent form (*see point 7*) will be available in both English and Afrikaans.

### 3. POTENTIAL RISKS AND DISCOMFORTS

If the resident experiences negative emotions or discomforts that they feel warrant the attention of a clinical psychologist, they will be informed not to hesitate to contact the researcher (Charné Nel), who will immediately notify you. The researcher will ensure that the clinical psychologist assigned to this study (Dr. Charl Nortje) is contacted immediately. A meeting will be arranged between the resident and the clinical psychologist in order to attend to the negative emotions or discomfort they experienced as a result of this study.

### 4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There are no benefits to you/the resident personally in this study, but there will be substantial benefits to society. This study will enhance the knowledge psychologists have regarding the positive dimensions to human behaviour. It will emphasize the importance of nurturing human strengths and virtues, as treatment is not just fixing what is broken, but nurturing what is best.

Participants may find the research interesting, and may be informed of the general findings of this study.

### 5. PAYMENT FOR PARTICIPATION

There is no payment involved for participating in this study

### 6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you/the residents will remain confidential and will be disclosed only with your/the residents permission or as required by law. Confidentiality will be maintained by keeping all questionnaires in a safe at the residence of the researcher, and on the researcher's private computer (protected by a password). You/the residents will not be identifiable in the publication of this research.

### 7. PARTICIPATION AND WITHDRAWAL

The residents will be informed of the nature, purpose and procedures of the study during the arranged meeting, prior to administration of tests and questionnaires. He/she will have access to a written informed consent form (in English or Afrikaans) which they will have to sign if they agree to participate.

The resident can choose whether to be in this study or not. If they volunteer to be in this study, they may withdraw at any time without consequences of any kind. They may also refuse to answer any

questions they don't want to answer and still remain in the study. The investigator may withdraw the resident from this research if circumstances arise which warrant doing so.

## 8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact **Charné Nel 082 711 0477**, or **Dr. Charl Nortje 083 582 3843**.

## 9. RIGHTS OF RESEARCH SUBJECTS

You/the resident may withdraw your/their consent at any time and discontinue participation without penalty. You/they are not waiving any legal claims, rights or remedies because of your/their participation in this research study. If you/they have questions regarding your/their rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

## 10. RESULTS OF STUDY

Once the research has been carried out, the results will be documented in the form of a master's thesis. The residents' individual responses will not be given back to or discussed with them, but if they/you are interested in the final results please feel free to contact the researcher. A meeting will be arranged where the broad findings of the study will be discussed.

Please indicate below (with an X) if you would like to be included in the meeting where results of the study will be discussed:

**Yes**, I want to come to the meeting:

**No**, I would not like to come to the meeting:

\* If you marked "**No**", you are welcome to change your mind at any stage by contacting the researcher prior to the meeting.

<b>SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE</b>
--

The information above was described to [*me/the matron/manager*] by Charné Nel in [*Afrikaans/English/Xhosa/other*] and [*I am/the matron/manager is*] in command of this language or it was satisfactorily translated to [*me/him/her*]. [*I/the matron/manager*] was given the opportunity to ask questions and these questions were answered to [*my/his/her*] satisfaction.

[*I hereby consent voluntarily to participate in this study/I hereby consent that the matron/manager may participate in this study.*] I have been given a copy of this form.

\_\_\_\_\_  
**Name of Matron/Manager**

\_\_\_\_\_  
**Name of Legal Representative (if applicable)**

\_\_\_\_\_  
**Signature of Matron/Manager or Legal Representative**

\_\_\_\_\_  
**Date**

<b>SIGNATURE OF INVESTIGATOR</b>
----------------------------------

I declare that I explained the information given in this document to \_\_\_\_\_ [*name of the matron/manager*] and/or [his/her] representative \_\_\_\_\_ [*name of the representative*]. [*He/she*] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/\*English/\*Xhosa/\*Other*] and [*no translator was used/this conversation was translated into* \_\_\_\_\_ by \_\_\_\_\_].

\_\_\_\_\_  
**Signature of Investigator**

\_\_\_\_\_  
**Date**

**Appendix T: Matron/Manager Consent Form (Afrikaans)**

UNIVERSITEIT • STELLENBOSCH • UNIVERSITY  
jou kennisvenoot • your knowledge partner

**UNIVERSITEIT STELLENBOSCH  
INWILLIGING OM DEEL TE NEEM AAN NAVORSING**

---

**Lewensbevrediging en dankbaarheid in die vroeë en laat volwasse jare**

U word hiermee versoek om toestemming te verleen dat die inwoners van \_\_\_\_\_ (aftreeoord) vrywillig deel neem aan 'n navorsingstudie wat deur Charne Nel van die Departement Sielkunde aan die Universiteit Stellenbosch uitgevoer word. Die uitslag sal in 'n tesis gebruik word. Die inwoners is as moontlike deelnemers aan die studie uitgekies omdat hulle voldoen aan die vereistes wat 'n persoon geskik maak om aan hierdie studie deel te neem.

**1. DOEL VAN DIE STUDIE**

Om te ondersoek of mense in hulle vroeë volwasse jare beduidend verskil van dié in hulle laat volwasse jare wat die volgende subjektiewe bepalers van welstand betref: oorkoepelende lewensbevrediging, die tydsgebonde dimensies (verlede, hede en toekoms) van lewensbevrediging, dankbaarheid, en tevredenheid met gesondheid.

**2. PROSEDURE**

Inwoners van die aftreeoord wat vrywillig instem om aan hierdie studie deel te neem, sal gevra word om die volgende te doen:

Vul asseblief die vyf vraelyste in die volgende volgorde in:

- 33) biologiese vraelys
- 34) die meetinstrument vir lewensbevrediging (SWLS – Satisfaction With Life Scale) die meetinstrument vir tydsgebonde lewensbevrediging (TSWLS – Temporal Satisfaction With Life Scale)
- 35) die meetinstrument vir dankbaarheid (GQ-6 – Gratitude Questionnaire-Six Item Form)
- 36) die meetinstrument vir tevredenheid met gesondheid (Health Satisfaction Question)

Dit behoort die inwoners ongeveer tien minute te neem om die vraelyste in te vul. Hulle sal nie meer as een keer gevra word om hierdie vraelyste in te vul nie.

Inwoners sal gevra word om die vyf vraelyste in te vul gedurende 'n vaste afspraak wat by hulle woonplek in die aftreeoord sal plaasvind. Ten einde afsprake te kan reël benodig die navorser dat u 'n **lys telefoonnommers van alle inwoners van die aftreeoord** verskaf. Indien moontlik, wil ons ook vra dat u **die telefoonnommers uitlaat van alle inwoners by wie kognitiewe wanfunksionering** (bv. demensie, alzheimersiekte) **reeds opgespoor is**, aangesien hierdie studie deelnemers benodig wat in hulle laat volwasse jare (60–75 jaar oud) en kognitief gesond is.

Gedurende die afspraak sal 'n kognitiewe siftingstoets, bekend as die MMSE (Mini Mental State Examination), op die betrokke inwoner uitgevoer word. Die uitslag van hierdie siftingstoets sal nie aan die inwoner self bekend gemaak word nie. In plaas daarvan gaan ons vooraf elke deelnemer se toestemming vra om, sou kognitiewe wanfunksionering wel deur die MMSE uitgewys word, 'n verslag te skryf aan sy of haar huisdokter, wat sou kon besluit om verdere professionele of mediese ondersoekte te laat uitvoer. Sou kognitiewe wanfunksionering by 'n inwoner opgespoor word, sal u/die matrone onmiddellik in kennis gestel word (**met dien verstande, natuurlik, dat hy of sy daartoe toegestem het**) en sal, met die persoon se toestemming, 'n verslag aan die huisdokter geskryf

word. Die verslag sal opgestel word deur 'n kliniese sielkundige, wat die aard van die wanfunksionering ook telefonies aan die betrokke inwoner se huisdokter sal verduidelik. Die navorser benodig dus ook dat u die **besonderhede (d.w.s. naam en telefoonnommer) van elke inwoner se huisdokter** verskaf.

Dui asseblief hier onder aan (J = Ja; N = Nee) of u die volgende inligting aan die navorser kan verskaf (*merk asseblief die toepaslike blokke*):

Lys van inwoners se telefoonnommers:  J  N

Lys van inwoners se huisdokters (sou die MMSE wel kognitiewe wanfunksionering uitwys):  J  N

Alle vraelyste asook die toestemmingsvorme vir deelnemers (*sien punt 7*) sal in Afrikaans sowel as Engels beskikbaar wees.

### 3. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Sou inwoners negatiewe gevoelens of ongemak ervaar wat hulle reken die aandag van 'n kliniese sielkundige regverdig, sal hulle ingelig word dat hulle baie welkom is om met die navorser (Charné Nel) kontak te maak; sy sal u onmiddellik in kennis stel. Die navorser sal verseker dat daar sonder versuim in verbinding getree word met die kliniese sielkundige wat aan hierdie studie toegewys is (Dr. Charl Nortjé). 'n Ontmoeting tussen die inwoner en die kliniese sielkundige sal gereël word ten einde aandag te gee aan die negatiewe gevoelens of ongemak wat die deelnemer weens hierdie studie ervaar het.

### 4. MOONTLIKE VOORDELE VIR PROEFPERSONE EN/OF VIR DIE SAMELEWING

Hierdie studie hou geen voordele vir u/die inwoners persoonlik in nie, maar sal tot aansienlike voordeel van die samelewing wees. Die studie sal sielkundiges se kennis oor die positiewe hoedanighede van menslike gedrag verbeter. Dit sal ook beklemtoon hoe belangrik dit is om mense se sterk punte en deugde te koester, want behandeling is nie net om reg te maak wat stukkend is nie, maar ook om dit wat baie goed is, met sorg te bevorder.

Die navorsing mag dalk vir die deelnemers interessant wees, en die algemene bevindings van hierdie studie mag aan hulle bekend gemaak word.

### 5. VERGOEDING VIR DEELNAME

Daar is geen vergoeding vir deelname aan hierdie studie nie.

### 6. VERTROULIKHEID

Enige inligting wat deur middel van die navorsing verkry word en wat met u/die inwoners in verband gebring kan word, sal vertroulik bly en slegs met u/die inwoners toestemming bekend gemaak word of soos deur die wet vereis. Vertroulikheid sal gehandhaaf word deur alle vraelyste in 'n kluis in die navorser se woonplek te bewaar, asook op die navorser se persoonlike rekenaar (wat deur 'n wagwoord beskerm word). Dit sal nie moontlik wees om u/die inwoners uit te ken uit die gepubliseerde navorsing nie.

### 7. DEELNAME EN ONTTREKING

Inwoners sal gedurende die vaste afspraak ingelig word oor die aard, oogmerk en werkwyse van die studie, voordat toetse uitgevoer en vraelyste ingevul word. Hulle sal voorsien word van 'n geskrewe vorm (in Afrikaans óf Engels) om hulle ingeligte toestemming te verleen, wat hulle sal moet onderteken as hulle wil instem om deel te neem.

Die inwoners kan self besluit of hulle aan die studie wil deelneem of nie. Indien hulle inwillig om aan die studie deel te neem, kan hulle te eniger tyd daaraan onttrek sonder enige nadelige gevolge. Hulle

kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Die ondersoeker kan die inwoner aan die studie onttrek indien omstandighede dit noodsaaklik maak.

## 8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, staan dit u vry om in verbinding te tree met Charne Nel by 082 711 0477, of Dr. Charl Nortje by 083 582 3843.

## 9. REGTE VAN PROEFPERSONE

U/die inwoners kan te eniger tyd u/hulle inwilliging terugtrek en u/hulle deelname beëindig, sonder enige nadelige gevolge vir u. Deur deel te neem aan die navorsing doen u/hulle geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u/hulle vrae het oor u regte as proefpersoon by navorsing, skakel met Me Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] van die Afdeling Navorsingsontwikkeling.

## 10. UITSLAG VAN DIE STUDIE

Nadat die navorsing uitgevoer is, sal die uitslag in die vorm van 'n magistertesis opgeteken word. Die inwoners se individuele antwoorde sal nie aan hulle teruggee of met hulle bespreek word nie, maar as hulle of u in die uiteindelijke uitslag belangstel, is u welkom om met die navorser kontak te maak. 'n Afspraak sal dan gereël word waar die algemene bevindings van die studie bespreek kan word.

Dui asseblief hier onder aan (met 'n X) of u graag 'n geleentheid sal wil bywoon waar die uitslae van die studie bespreek word:

**Ja**, ek wil graag die bespreking bywoon:

**Nee**, ek wil nie die bespreking bywoon nie:

\* As u "**Nee**" gemerk het, is u welkom om te enige tyd voor die bespreking van plan te verander en die navorser daarvan in te lig.

**VERKLARING DEUR PROEFPERSON OF SY/HAAR REGSVERTENWOORDIGER**

Die bostaande inligting is aan my, [*die matrone/bestuurder*], gegee en verduidelik deur Charne Nel in [*Afrikaans/English/Xhosa/other*] en [*ek is/die die matrone/bestuurder is*] dié taal magtig of dit is bevredigend vir [*my/hom/haar*] vertaal. [*Ek/die matrone/betsuurder*] is die geleentheid gebied om vrae te stel en my/sy/haar vrae is tot my/sy/haar bevrediging beantwoord.

[*Ek willig hiermee vrywillig in om deel te neem aan die studie*]. 'n Afskrif van hierdie vorm is aan my gegee.

\_\_\_\_\_  
**Naam van Matrone/Bestuurder**

\_\_\_\_\_  
**Handtekening van Matone/Bestuurder**

\_\_\_\_\_  
**Datum**

**VERKLARING DEUR ONDERSOEKER**

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan \_\_\_\_\_  
[*naam van die matrone/bestuurder*] en/of sy/haar regsverteenvoordiger \_\_\_\_\_  
[*naam van die regsverteenvoordiger*]. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in [*Afrikaans/Engels*] gevoer en [*geen vertaler is gebruik nie/die gesprek is in \_\_\_\_\_ vertaal deur \_\_\_\_\_*].

\_\_\_\_\_  
**Handtekening van ondersoeker**

\_\_\_\_\_  
**Datum**