

Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables

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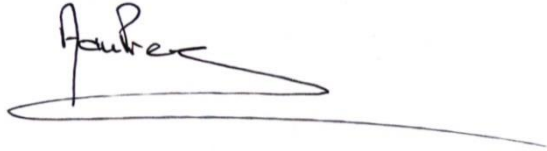
Mini-dissertation submitted in partial fulfilment of the requirements
for the degree Master of Arts in Positive Psychology at the North-
West University

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Graduation: May 2020
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Solemn declaration

I, A. du Preez (student), hereby declare that the work is my own and has not been submitted to any other institution for examination.

A handwritten signature in dark ink, appearing to read 'A. du Preez', followed by a long, horizontal, slightly wavy line that extends to the right.

A. du Preez (Student)

Letter of Permission

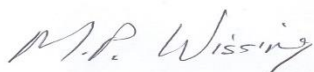
Permission is hereby granted by the co-authors that this manuscript may be submitted by the first author for the purposes of a mini-dissertation. The first author (student) conducted the literature review, interpreted the results, and drafted the manuscript with incorporation of suggestions from the co-authors (supervisor and co-supervisors). She took responsibility for the technical and language editing of the manuscript.



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To whom it may concern

This is to testify that the master's dissertation titled

'Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables'

by

Antonette du Preez

has been language edited to the best of the language practitioner's knowledge and ability.

The language practitioner in question is registered at the South African Translators' Institute (SATI) with membership number 1003382 and thereby fully qualified and authorised to provide said services.

Should there be any queries, please feel free to contact the language practitioner at the number provided below.

Kind regards

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Acknowledgements

I want to express my gratitude to the Lord for giving me this opportunity. I also want to thank the following persons who played a key role throughout this academic journey:

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To my two sons, Simón and JP, thank you for your motivation, patience, and support. Without your love, this would not have been possible.

Preface

This is a mini-dissertation submitted in article format as indicated in the General Academic Rules (A4.4.2 and A4.10.5) of the North-West University. This article is submitted in partial fulfilment of the requirements for the Master of Arts degree in Positive Psychology. The mini-dissertation accounts for 60 of the total 180 course credits and in article style meets the requirements of the specific journal that was selected for submission, namely the *Journal of Spirituality in Mental Health*. The intended journal has a certain prescription and this manuscript was adapted to meet the requirements of the journal. The *Journal of Spirituality in Mental Health* requires US English and this manuscript was formatted accordingly. The page numbering for this mini-dissertation is consecutive; however, for the journal, the manuscript will start with page one.

This study forms part of a collection of studies affiliated to, and using data from the FORT3 research project (FORT3 studies the prevalence of levels of psychosocial health: dynamics and relationship with biomarkers of (ill)health in South African social contexts). The collection of studies explore the concordance of goals and meaning in different life domains and the associations thereof with sociodemographic variables and psychosocial well-being. The present study considers the spirituality domain of life. Since all the studies utilise the same methodology and are based on the same data, there will necessarily be some overlap. However, each study has its own distinct focus linked to the domain of life relevant to the study, resulting in uniqueness in the study's conceptual background, results, discussion, implications, and contribution.

The mini-dissertation consists of three chapters. Chapter 1 reflects the proposal and the ethics application approved by the relevant bodies and panels. Please note that the fonts in Chapter 1 may vary as the official forms included are issued in a different font to the one specified for this mini-dissertation. Chapter 2 is the manuscript and main report for

examination, which will be adapted to be submitted to the journal. Chapter 3 highlights the conclusions of the study, the recommendations for further research, and a reflection by the student.

Summary

Key constructs in the process of human flourishing towards well-being are goals and meaning. These constructs have been studied individually, but limited studies are available on how they are aligned in various domains of life. Both goals and meaning are often value-related and as such may have prominence in the spiritual domain of life. The link between them may, however, differ with age, gender, or other socio-demographic variables. Research on the alignment or concordance of goals and meaning in the spirituality domain of life is scarce, and no literature on the associations with socio-demographic variables in a South African context could be found.

This study will address this gap and is an affiliated study of the FORT3 research project making use of data already gathered. The FORT3 research project investigated the prevalence of levels of psychosocial health with regard to the dynamics of and relationships with biomarkers of (ill) health in a South African social context.

The aim of this study was to explore the patterns of concordance of goals and meaning in the spirituality domain, and how these patterns are associated with demographic variables. A mixed methods convergent parallel design was used with simultaneous cross-sectional collection of quantitative and qualitative data. Findings showed that very few people mentioned aspects related to spirituality as one of their three most important goals in life or the reasons therefore, but more mentioned spirituality as one of the three most meaningful things in their lives or the motivations therefore. Some indications of an association between socio-demographic variables and the different goal and meaning alignment patterns were found. Specifically, higher standard of living and level of education were associated with a higher probability of mentioning spirituality in goals and meaning. A possible contribution of this study may be that it provides knowledge for the development of well-being interventions towards the facilitation of eudaimonic well-being in life.

Table of Contents

Chapter 1	11
Research Proposal.....	16
Approval letter of the Scientific Committee	46
Approved HREC application.....	47
Approval letter of HREC application (NWU 00075-18-S1)	126
Summary.....	128
Chapter 2	129
Manuscript for Evaluation.....	129
Manuscript in Article Format.....	129
Instructions to Authors	129
Manuscript.....	137
Abstract.....	138
Goals	140
Meaning	142
Concordance of Goals and Meaning.....	143
Socio-Demographic Factors and Well-Being	143
The Spirituality Domain of Life	144
The Present Study	145
Method	146

Research Design.....	146
Participants.....	146
Measures	147
<i>Socio-demographic questionnaire.</i>	147
<i>Semi-structured open-ended questions on goals and meaning.</i>	147
Procedure	147
Ethical Considerations	148
Data Analysis	148
Results	150
Frequencies of Goals and Meaning in the Spirituality Domain.....	150
Association between Alignment Patterns and Socio-demographic Variables.....	151
Gender.....	151
Age.....	152
Standard of Living	153
Education	154
Marital Status.....	155
Work Status	157
Discussion.....	158
Limitations and Recommendations for Future Research.....	159
Conclusion	160
Acknowledgments	160
Declaration of Conflict of Interest	160
Chapter 3	171

Summary	171
Possible Implications for Practice and Further Research	171
Personal Reflection	171
Conclusion	172

References	174
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Tables

Table 1. Frequency distribution of goals and meaning in the Spirituality domain	150
Table 2. Association between alignment patterns and gender groups	151
Table 3. Association between alignment patterns and age groups	152
Table 4. Association between alignment patterns and standard of living groups	153
Table 5. Association between alignment patterns and levels of education	154
Table 6. Association between alignment patterns and marital status groups	156
Table 7. Association between alignment patterns and working groups	157

Figures

Figure 1. Association between alignment patterns and gender	152
Figure 2. Association between alignment patterns and age groups	153
Figure 3. Association between alignment patterns and standard of living	154
Figure 4. Association between alignment patterns and level of education	155
Figure 5. Association between alignment patterns and marital status	156
Figure 6. Association between alignment patterns and work status	158

Chapter 1

Orientation

Chapter 1 presents the research proposal and ethics application that were approved before the study was conducted. This is followed by Chapter 2, the manuscript and main research report.

A literature review was conducted on the relevant topic and a research proposal developed. This was firstly approved by a subject research group and then submitted to the Scientific Committee of the Africa Unit for Transdisciplinary Health Research (AUPeR). After it was approved by the AUPeR Scientific Committee, the ethics application was submitted to the Health Research Ethics Committee (HREC) of the North-West University, South Africa for approval. The documents of approval of all these committees are included in the first chapter as evidence. There are overlaps between the proposal, ethics application, and main research report / manuscript in Chapter 2, because these components are all based on the same project in different phases.

Approved Protocol for this Study



Cover Page for Research Proposal	
School	Africa Unit for Transdisciplinary Health Research (AUTHeR)
Discipline	Positive Psychology
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Degree	Master of Arts in Positive Psychology
Date of first registration for above mentioned degree	2016/02/02
Student number	11080655
Title of thesis/dissertation/mini- dissertation	Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables
Study leader/promoter	Ms C. Liversage
Help-/co-leader/promoter	Dr L. Schutte Prof. M.P. Wissing

Number of times of submission of this protocol (Mark were applicable)	1st	X
	2nd	
	3rd	
Does this project fall under a greater umbrella project?	Yes	X
	No	
If yes, Ethical number of the larger project	NWU-00002-07-A2	
Title of the larger project	FORT3: The prevalence of levels of psychosocial health: Dynamics and relationships with biomarkers of (ill)health in South African social contexts Sub-project: Meaning and Relational Well-being as core facets of functioning well and Psychosocial Health (NRF-CPRR funded project).	
Leader of the larger project	Prof. M. P. Wissing	
Specific aims of larger project where by this study links	FORT3: The specific aims included to explore: the nature, sources and motives for meaning, goals and positive relationships with a qualitative and quantitative mixed method approach. This will be done among others by implementing the Eudaimonic-Hedonic Happiness Investigation instrument (EHHIi) developed by Delle Fave et al. (2011), and various visual (photo) and	

	other art forms (e.g., poetry) in different groups (e.g., adolescents, adults, teachers) and in various South African cultural contexts, as well as for flourishing and languishing participants; the links between meaning, goals/purposes, positive relational processes, and other facets of psychosocial well-being, taking into account some socio-demographic and contextual variables.		
Will new data be collected?		Yes	
		No	X
Names of scientific panel within AUTHeR that approved this research protocol	1	Prof. P. Bester	
	2	Prof. L. Kruger	
	3	Dr K. Forbes-Biggs	
	4		
	5		
Date of approval by abovementioned panel	01 November 2018		

Executive Summary

Goals and meaning are key constructs in the process of human flourishing towards well-being. These constructs have been studied individually, but limited studies are available on how they are aligned in various domains of life. Research on the alignment or concordance of goals and meaning in the spirituality domain of life is scarce, and no literature on the associations with socio-demographic variables in a South African context could be found.

This study aims to address this gap and is an affiliated study of the FORT3 research project making use of data already gathered. The FORT3 research project investigated the prevalence of levels of psychosocial health with regard to the dynamics and relationships with biomarkers of (ill) health in a South African social context.

The aim of this study was to explore the patterns of concordance of goals and meaning in the spirituality domain, and how these patterns are associated with demographic variables. A mixed methods convergent parallel design was used with simultaneous cross-sectional collection of quantitative and qualitative data. A possible contribution of such a study can be that it provides knowledge for the development of well-being interventions towards the facilitation of eudaimonic well-being in life.

Research Proposal

Proposed Title

Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables.

Keywords: concordance, goals, meaning, socio-demographic variables, spirituality, well-being

Problem Statement

Positive psychology has received much attention in recent years which resulted in an increasing number of research studies. It is a science which focuses on positive human functioning and explores the conditions of flourishing of people and communities (Seligman, 2007). Some key constructs in the process of human flourishing towards well-being include goals and meaning (Emmons, 2005). These constructs have been studied individually, but limited studies are available on how they are aligned in various domains of life. Research on the alignment or concordance of goals and meaning in the spirituality domain of life is scarce, and no literature on the associations with socio-demographic variables in a South African context could be found.

The current study is an affiliated study of the FORT3 research project, with ethics approval number NWU 00002-07-A2, that focuses on the prevalence of levels of psychosocial health, considering the dynamics and the relationships thereof with biomarkers of (ill) health. Two of the specific aims of the FORT3 research project include determining the prevalence of levels of psychosocial well-being in diverse groups in a South African context, as well as the links between meaning, goals, and other facets of psychosocial well-being as associated with socio-demographics using a qualitative and quantitative mixed method approach. The present study will explore the patterns of concordance of goals and meaning in the spirituality domain of life and how different patterns of concordance are

associated with socio-demographic variables. For the purposes of this affiliated study, the words concordance and alignment will be used as synonyms.

The present study includes data collected in a South African group of participants as part of the FORT3 project, for the international EHHI project. In previous EHHI research including data from the FORT project (Delle Fave et al., 2011, 2013), it was shown that participants across various countries seldom referred the spiritual domain of life when listing their most important goals and things that are meaningful – with the exception of South Africa. The present study focuses on a further exploration of goals and meaning in the spiritual domain of life in a South African group. Such a study is regarded as needed in view of the high percentage of people considering themselves as religious in South Africa (Census data 2013), the close association between religion and spirituality, and previous research in South Africa indicating the importance of religion and spirituality in identity formation and the experience of meaning in life (e.g., Albert & Bennet, 2017; Nell, 2014; Wissing, Khumalo, & Chigeza, 2014) and the association of higher well-being with spiritual orientations – albeit with some conflicting findings. It is, however, not known how goals and meaning pan out in the South African context, and how this may be expressed in different socio-demographic groups.

Goals

Over time, goals have been explained in a variety of ways. Gebhardt (2006) explains goals as desired future states that people seek to maintain, obtain, or avoid. According to Klinger (2012), to set goals is to have a “purpose for action” (p. 28). Diener (2012) described goals as reaching an aim which has value or movement towards an ideal state. Goals play an important role in directing behaviour towards the cultivation of well-being (Monzani et al., 2015).

Self-concordance can be defined as the extent to which personal goals are pursued with an intrinsic feeling of interest (Gaudreau, 2012). Personal goals and meaning are intertwined with eudaimonic well-being (Delle Fave, Brdar, Vella-Brodrick, & Wissing, 2013). The difference between intrinsic and extrinsic goals is that intrinsic goals refer to the person's psychological needs whereas extrinsic goals refer to financial successes, impressions of other people, and social recognition (Ciani, Sheldon, Hilpert, & Easter, 2011).

There are different types of goals, such as: performance goals which are concerned with making a good impression in demonstrations of talents and abilities; approach goals which imply movement in a positive direction and positive outcomes; instrumental goals which place the focus on effectiveness; and constitutive goals which focus on the inner person and connect the activity to meaning (Darnon, Butera, & Harackiewicz, 2007; Darnon, Harackiewicz Butera, Mugny, & Quiamzade, 2007; Pekrun, Elliot, & Maier, 2009).

It is essential to understand personal goals and how they can be an indicator of well-being (Keyes, 2006). Stolarski, Vowinckel, and Jankowski (2016) state that goals are part of essential concepts in positive psychology such as self-determination, purpose, and meaning. Meaning and purpose come from experiencing actions which turn towards desired goals (Park, 2010).

Meaning

According to King and Hicks (2009), there are two processes in defining meaning: one in which you can find meaning by constructing meaningful things in your life, and the second in meaning detection, when you feel that your life makes sense through giving to other people or doing something for others. This happens when our view of the world needs to be re-assessed in order to make sense of experiences. Meaning in life is considered by many as a critical ingredient in human flourishing and well-being (Peterson & Park, 2012;

Steger, Oishi, & Kashdan, 2009). Personal meaning is defined by Fry and Debats (2010) as a cognitive map that helps a person to steer the course of their lives.

The presence of meaning is associated with positive emotions, positive adjustments, self-regulation, personal traits, constructive coping, and optimism. It is reported that individuals with a sense of meaning in their lives have positive emotions, greater life satisfaction, better self-esteem, and higher levels of optimism (Steger et al., 2009). The creation of meaning can be linked to personal development and is likely to initiate other processes, such as the development of identity, relationships, and goals (Steger, Oishi, & Kashdan, 2009).

The PURE model (Wong, 2011) emphasizes four components of meaning in life, namely: purpose, understanding, responsible action, and enjoyment (PURE). Wong describes the PURE model as a guide to determine if a person is on the right meaningful track in life. The PURE model gives guidelines on a cognitive level for evaluation and decision making in life and assists in giving an account of what people want and how to achieve goals in life. Four important psychological processes for meaningful living are: motivational (purpose, needs, and life goals), cognitive (making sense of life and understanding life), social and moral (commitment, accountability, and responsibility), and affective (positive emotions, enjoyment, and evaluation; Schnell, 2011).

Meaning in life is linked with psychological and physical outcomes (Boyle, Barnes, Buchman, & Bennett, 2009). Goals, meaning, and hope are interlinked as global and existential constructs and include coherence, purpose, and significance. Goals represent a key component of meaning that an individual possesses as they reflect values. Positive interpersonal cognitive processes link the main constructs being the fulfilment of well-being needs, relationships, and understanding and link across different domains of life (Wilson,

Wissing, Ndimba, & Somhlaba, 2018). Meaning is seen as a path to living a fulfilled life and is a core construct of well-being (Steger, 2018).

Well-being

In the field of positive psychology, there are two main streams of thought about well-being: the hedonic approach, where the focus lays on happiness, positive emotions, pleasure, and enjoyment; and the eudaimonic perspective, which includes purpose and goals and how they link to well-being (Delle Fave et al., 2013). Eudaimonic concepts focus on meaning in life and overall well-being and flourishing.

Well-being consists of a combination of different elements. In the PERMA model, Seligman (2012) opines that well-being consists of the following elements: positive emotions (P), which refers to feeling good; engagement (E), which refers to being completely absorbed in activities; relationships (R), which refers to being authentically connected to others; meaning (M), which refers to purposeful existence; and achievement (A), which comprises a sense of accomplishment and success. Through positive emotions, flow can be achieved as well as authentic connections, purposeful existence, achievement, and accomplishment (Csikszentmihalyi, 1990; Nakamura & Csikszentmihalyi, 2014).

Frederickson and Losada (2005) view flourishing as the experience of positive emotions and functioning in an optimal range of well-being on psychological and social levels. This research is strongly focused on the balance ratio between positive and negative emotions, which entails the frequency of positivity over any given timespan divided by the frequency of negativity over the same timespan. People living in this way have the ability to think bigger (broaden their thoughts) and facilitate their behaviour daily to rebuild new resources. This approach is captured in the broaden and build theory of Frederickson (2004), which suggests that positive emotions have a broadening effect that allows automatic responses to be replaced with creative and new responses to situations.

Different types of well-being can be distinguished in the mental health continuum model (Keyes, 2007). These are: emotional well-being (positive emotions, interest in life, and satisfaction with life), which is more hedonic in nature; psychological well-being (self-acceptance, autonomy, personal growth, positive relations, environmental mastery, and purpose in life); and social well-being (social integration, social contribution, social coherence, social actualization and social acceptance). Emotional well-being mostly relates to the hedonic facets of well-being, whereas psychological well-being along with social well-being elements are postulated as specific eudaimonic components in the mental health continuum model (Keyes, 2007).

Eudaimonic well-being concepts focus on meaning in life and self-realization, and define well-being in terms of the level to which a person is fully functioning (Ryan & Deci, 2001). Lambert, Passmore, and Holder (2015) put forward that the meaning of goals and the pursuit of goals play a big role in reaching optimization.

The absence of a sense of meaning in life may result in an individual just going through the motions of life and not focusing on pursuing a goal (Ventegodt & Merrick, 2012). Sheldon and Kasser (1995) found support that self-concordant people appear happier because they experience satisfaction through their goal pursuits. Meaning is also linked to deeper levels of intrinsic motivation (Csikszentmihalyi, 1990; Herscovitch & Meyer, 2001; Lockwood, 2007). Socio-demographic factors play an important part in the experience of well-being as they may explain variance in psychological well-being and mental health (Khumalo, Temane, & Wissing, 2012). Meanings and goals are core facets of eudaimonic well-being and were the focus of this study.

Socio-demographic factors and well-being. Socio-demographic variables such as gender, standard of living, education levels, and marital status play an important part in the experience of well-being (Diener, Oishi, & Lucas 2003). Khumalo et al. (2012) conducted a

study where the findings indicate that socio-demographic variables play an important role in psychological well-being in South African Setswana-speaking communities. Higher psychological well-being was aligned with employment, education, being married, and living in urban areas. Living in a rural environment, as well as being unemployed, had a great impact on well-being and were found in this case to be detrimental to well-being. The present study will explore the association of socio-demographic factors such as age, gender, standard of living, marital status, and education level with goals and meaning in the spirituality domain of life as found in a South African sample.

Spirituality

Spirituality may be defined in different ways as for some people, spirituality is the expression of values, morals, purpose, hope, and meaning in life (Rudolfsson, Berggren & Da Silva, 2014) and for others, spirituality is viewed as a part of people's global meaning; an overarching framework of beliefs, goals, and sense of meaning (Uwland-Sikkema, Visser, Westerhof, & Garssen, 2018). Regardless of how spirituality is expressed, aspects such as goals and meaning appear in the conceptualization of spirituality. Kashdan and Nezlek (2012) found that spirituality was positively related to self-esteem, positive affect, and meaning.

In the South African context, spirituality plays an important part in the experience of meaning in life (Nell, 2014; Wissing, Khumalo, & Chigeza, 2014). Nell (2014) puts forward that defensive religiousness (recognition, realization, and consciousness) improves meaning by providing answers to life's questions and uncertainties. The meaning of spirituality and religion is evolving in itself but spirituality is more about having personal experiences and religion is more about dogmatic beliefs and thus, in a sense, believing in someone else's perspective (Pargament, 2009).

Fry and Debats (2010) put forward that purpose and meaning in life are linked with religion and spirituality and that a relationship with 'something' sacred is a defining feature

of mental health. Spirituality provides guidelines for healthy living and also enhances social support. It provides meaning and purpose (Koenig, 2010). Research by Ivtzan, Chan, Gardner, and Prashar (2013) indicates that religion and spirituality are linked with psychological well-being in that it results in increased levels of self-actualization, meaning in life, and personal growth.

Garsen, Visser, and De Jager Meezenbroek (2016) examined whether spirituality predicts subjective well-being. The following dimensions were identified in this regard, namely that well-being involves connectedness with oneself, with others, with nature, and with the transcendent (spiritual connectors). There remains a need for knowledge about the specific patterns of alignment between goals and meaning in the spirituality domain of life and how these patterns are associated with demographic variables. Religion is a potent source of well-being and therefore relevant for meaning in life. People who pursue spirituality are actively searching or seeking meaning in life (Abeyta & Routledge, 2018).

A primary concern of research in the study of well-being is the understanding of the alignment of goals and meaning in the context of spirituality. Steger (2012) states that through exploring the alignment of spirituality and meaning of life, understanding will occur on practical levels in life and, in turn, enhance well-being and meaning.

Research Aims

The aim of this study is to explore the patterns of concordance of goals and meaning in the spirituality domain of life and how different patterns of concordance are associated with socio-demographic variables such as gender, age, levels of education, standard of living, and marital status. The distinguished patterns of alignment of goals and meaning are as follows: i) the participant did not mention spirituality as a goal or meaningful thing; ii) spirituality was mentioned both as a goal and a meaningful thing; iii) spirituality was mentioned as a goal but not as something meaningful; iv) the participant mentioned

spirituality as something meaningful but not as a goal. For the purposes of this study, the words concordance and alignment will be used interchangeably.

Method

The research team is aware that ethics requirements may have changed since the data gathering of the original FORT3 project but is certain that all ethics requirements as specified at the time of data gathering were met. The FORT3 project obtained ethical approval: NWU 00002-07-A2 from the Health Research Ethics Committee (HREC) of the North-West University. Data gathering was done in accordance with all the rules that were applicable at the time of gathering the data. An annual monitoring report was submitted to the HREC of the North-West University. The FORT3 project is therefore still active and allows for analysis of the already gathered data.

The participants consented to what is being done in the present study and data integrity is ensured by the principal investigator, Prof. M.P. Wissing and the collaborator Dr L. Schutte. These matters were discussed with the Head of the Ethics Office and the Chair of the Health Research Ethics Committee of the North-West University, Potchefstroom Campus and it was clarified that FORT3 is ethically acceptable. Details on the mentioned aspects will be explained below.

Design

By means of a cross-sectional survey design, the FORT3 project (Wissing, 2008/2012) explored the dynamics and relationships with biomarkers of (ill) health in South African social context. The current study will make use of already gathered data from the FORT3 project with a mixed method convergent parallel research design where the researcher values both quantitative and qualitative data as approximately equal sources of information in the study. The qualitative responses to the open-ended questions on goals and meaning were converted to quantitative data using the coding system developed in an

international project by Delle Fave et al. (2011). The FORT3 project simultaneously collected qualitative and quantitative data. By implementing the coding categories developed by Delle Fave, Brdar, Freire, Vella-Brodrick, and Wissing (2011) in which basic codes were categorised and grouped into life domains (among others the spirituality domain on which this study focuses), qualitative data were converted into quantitative data and then analysed and interpreted.

Participants

The procedure followed to recruit the participants and the exclusion criteria of the study are discussed in section 4.6.4. The participants (N = 585) had at least a Grade 12 level of education, and had to be fluent in English. The participants were an adult South African group who were between 18 and 60 years of age (18-25 years of age [n = 51]; 16-40 years of age [n = 23]; 41-60 years of age [n = 304]; and over 60 years of age [n = 14]).

Breakdown of Participants for the FORT3 Project

Please note that general information regarding the breakdown of participants of the FORT3 project (which has been published in articles) was made available to all students conducting research in the different domains. The student did not have access to any data pertaining to the spirituality domain prior to ethical approval.

The participants reported different levels of education: secondary education [n = 220] and tertiary education [n = 361]. There were four participants who did not answer the question. The different levels of living standard were indicated as below average [N=32], average [n = 385], and above average [n = 147]. Twenty one participants did not answer the question. The marital status of the participants was as follows: single [n = 145], married [n = 367], cohabitating [n = 19], separated [n = 34], and widowed [n = 11]. Nine participants did not answer the question.

Measures

Socio-demographic Questionnaire

The socio-demographic questionnaire collected data on gender, age, level of education, standard of living, and marital status. Data collected from the FORT3 research project (ethical approval number NWU 00002-07-A2) were used.

Semi-structured Open-ended Questions on Goals and Meaning

The original study made use of two semi-structured open-ended questions as formulated by Delle Fave et al. (2011) in the Eudaimonic-Hedonic Happiness Investigation (EHHI) questionnaire. By means of a cross-sectional survey design, the FORT3 project investigated the prevalence of levels of psychosocial health and explored dynamics and relationships with biomarkers of (ill) health in South African social contexts. Four of the eight open-ended questions that were posed in the mixed methods EHHI instrument in the original FORT3 study are used in the present study. The following questions on goals and meaning were used:

- ‘Please list the three most important future goals for you’,
- ‘For each of them, please specify why it is important’,
- ‘Please list the three things that you consider most meaningful in your present life’,
- ‘For each of them, please specify why it is meaningful (try to be as specific as possible)’.

Procedure

In this affiliated study, data collected from the FORT3 research programme (ethical approval number NWU 00002-07-A2) were used. Data for the FORT3 project were collected by postgraduate students who worked as fieldworkers under the supervision of the researchers.

These fieldworkers were trained in the administration of psychosocial well-being measures. After informed consent was obtained by the participants, they completed the research battery at a convenient time and place of their choice and submitted the questionnaires to the fieldworkers who returned the questionnaires to the researchers. The questionnaires had overall positive content and chances of an emotional response were minimal. However, in the case where the completion elicited emotional reactions from the participants, the participant could ignore the question or withdraw from the study without any negative consequences.

The participants were given the option of referral to counsellors or psychologists who could assist them if they needed debriefing, by providing them with telephone numbers of counsellors or psychologists who were requested to assist the participants. However, no participant indicated the need for debriefing. Since it was not a requirement at the time when the data were gathered, no personal feedback was given to participants on the completed questionnaires. No incentives were offered for participation. Participation was voluntarily, and respondents was free to disengage at any stage.

The consent forms and the questionnaires were handed in separately, thus it was not possible to connect a specific participant to a specific questionnaire. The qualitative responses of participants on the questions to goals and meaning were transformed to quantitative data, based on a coding system developed by Delle Fave et al. (2011), and were thereafter captured by the North-West University's Statistical Consultation Services.

In this coding system, all the verbal expressions of the participants were given a code. The codes were then categorized and thereafter grouped into life domains, among others the spirituality domain on which this study focuses. The dataset was stored on the premises of the North-West University in specifically allocated locked cupboards. The FORT3 principal investigator (PI) and collaborator, who were the only people with access, kept the electronic

data on password-protected computers to ensure integrity and that no tampering with the data was possible.

Data analysis

Qualitative Data Analysis and Trustworthiness

The qualitative responses to the open-ended questions on goals and meaning were converted to quantitative data using the coding system developed in an international project by Delle Fave et al. (2011). The responses of the participants were sorted into groups, then categorized, after which they were thematically grouped into life domains. This was an interactive process moving between codes, categories, and themes / life domains. The spirituality domain was the focus of this study. Two coders who were trained in the prescribed EHHI project coding system by the PI and collaborator coded the South African data. If there were any discrepancies, it was discussed to see if consensus could be reached. The FORT3 PI was involved in discussions if consensus could not be reached, and the PI then assigned the final code. In a few cases of coding difficulties, consultations took place with an international expert Prof. Antonella Delle Fave who was also the leader of the team which developed the coding system. New codes were added to the international coding system where necessary.

Quantitative Data Analysis

The following quantitative analyses were conducted through combining the coded (quantified) qualitative data with the quantitative data from the socio-demographic questionnaires:

The frequency of the spirituality domain being mentioned as an important goal, the reason for an important goal, as something meaningful, and as a reason for something being meaningful, were determined using IBM SPSS Statistics.

Using Microsoft Office Excel, the alignment patterns between goals (what and why) and meaningful things (what and why) within the spirituality domain were determined per person. Four alignment patterns were distinguished in this study:

- 1) The spirituality domain was NEITHER mentioned in the participant's important goals or the reasons therefore, NOR in his/her meaningful things or motivations therefore.
- 2) The spirituality domain was mentioned in BOTH the participant's important goals or the reasons therefore, AND in his/her meaningful things or motivations therefore.
- 3) The spirituality domain WAS mentioned in his/her important goals or the reason therefore, BUT NOT in his/her meaningful things or motivations therefore.
- 4) The spirituality domain WAS NOT mentioned in the participant's important goals or the reasons therefore, BUT WAS mentioned in his/her meaningful things or motivations therefore.

Cross tabulations and accompanying chi-square tests were used to explore the associations between the alignment patterns and the demographic variables using IBM SPSS.

Ethical Considerations

Goodwill Permission / Consent

This present study was an affiliated study of the FORT3 research project. The FORT3 project was approved by the Health Research Ethics Committee of the North-West University, with project number NWU 00002-07-A2. As required by the Health Research Ethics Committee of the North-West University, monitoring reports are submitted on an annual basis. This implies that the FORT3 project is active and allows for analysis of the gathered data.

Specific aims of the FORT3 included to explore: “the nature, sources and motives for meaning, goals and positive relationships with a qualitative and quantitative mixed method approach”. The aim of the present study, which is aligned with the FORT 3 objectives, is to

explore the patterns of concordance of goals and meaning in the spirituality domain of life, and to explore the association of these patterns with well-being, as well as their associations with socio-demographic variables.

Facilities

Most of the participants could complete the questionnaires at their homes or at a time and place of their own convenience. The facilities used for this study were an office on the premises of the NWU, AUTHeR, where the student researcher would work with the data under supervision of the supervisor and co-supervisor.

Risks and Benefits

Although the battery focused on positive aspects of life, there may have been minimal risk as the completion thereof could have elicited emotional reactions from the participants. If the response was negative, the participant could ignore the question or was free to withdraw from the study. Debriefing was offered to participants who needed it. Although no participants indicated a need for debriefing or referral, the option of referral was made available and psychologists were available. The risk in the affiliated study for the participants was considered minimal since the content of the questionnaires focused on positive mental health. The data that were analysed in the affiliated study was anonymous (the original participants cannot be identified); the identified data that were used in this study was and will be ensured as described in 4.6.10 (Management, storage and destruction of data); and the research done as in 4.6.11 (Monitoring of research). Additional risks that may arise if research is not done in a scientifically accountable manner were prevented by the fact that the team working on the study has the necessary experience and expertise to conduct the study (see section 4.6.12.)

Although there were no direct benefits for the participants, the test battery created an opportunity to reflect on relationships, meaning, and goals in the lives of the participants. The

study further contributed to the scientific knowledge of psychosocial well-being in the South African context with the potential of focusing on interventions on the aligning of goals and meaning to improve well-being. The potential benefits were deemed to outweigh the potential risks.

Inclusion and Exclusion Criteria

To partake in the FORT3 study, the participants had to be at least 18 years old, have at least a grade 12 level of education to ensure good comprehension, and have sufficient skills to read and write English in order to answer the questionnaires. No specific exclusion criteria were applied, but for this specific affiliated study, all the participants in the FORT3 project who responded to all the questions that are relevant to this study and whose qualitative data had been coded according to the coding system as developed by Delle Fave et al. (2011) were included and resulted in $N = 585$.

Participant Recruitment

Postgraduate students who served as fieldworkers were used to gather data in the FORT3 project. They did this after they were trained in the administration of psychosocial well-being measures and were supervised by the FORT3 PI.

A non-probability snowball method was used to recruit participants and the fieldworkers identified people in their communities who adhered to the inclusion criteria. The participants were not coerced, pressured, or manipulated to participate. After the fieldworkers received the contact details, they followed up on the references. The fieldworkers also checked that all the participants met the inclusion criteria. Participants from all over South Africa could be included if they met the inclusion criteria as a result of the snowball method. This helped in adding diversity to the sample, which made it the sampling method of choice.

Informed Consent

Postgraduate students were trained as fieldworkers and acted under the supervision of the researchers. The fieldworkers explained to the participants that the responses would be handled anonymously and that participation was voluntary. It was indicated that participants were free to withdraw without any negative consequences. No coercion took place. There were no direct benefits for the participants, but an opportunity was created for the participants to reflect on the goals, meanings, and relationships in their own lives through answering the questions.

The participants had the opportunity to ask any questions to the PI and the research team. After explaining the aim of the study (to explore the motives of meaning, goals and positive relationships as well as facets of psychosocial well-being) to the participants, they had time to decide whether they wanted to be part of the study or not. Those who agreed to be part of the research completed an informed consent form and completed the test battery at a place and a time that was convenient to them. After completion, they handed the completed informed consent form and questionnaires back to the fieldworkers.

We are aware that the newest ethical rules require participants to receive the informed consent form at least a week before participation. The data gathering did not take place under this prescription because at the time of data gathering the latest rules were not applicable. As the participants could complete the consent form and the test batteries at a place and time of their convenience, it is reasonable to accept that they had sufficient time to consider participation.

Incentives and/or Remuneration of Participants

The participants were not offered incentives and/or remuneration as this was not a pre-requisite at the time of the study. This was a study with minimal risk and the participants completed the questionnaires at their homes or a place of convenience; therefore, there were

no extra costs involved. The study offered a self-reflection on positive aspects such as well-being and life goals; therefore, we consider it ethically justifiable to say that the participants were not exploited by not receiving remuneration. If a similar study might be conducted now, a token of appreciation can be offered to participants.

Dissemination of Results

The findings and results will be submitted for publication in a scientific and recognised journal and the results will be integrated with other findings of the FORT3 project and will be published in the lay press. At the time of the study, it was not a requirement that the results should be disseminated to all the participants and unfortunately, there are no contacts details of the participants which is why we cannot communicate with them and inform them of the results of this study. This limitation is acknowledged, and the findings will be shared in the wider and lay community through workshops to assist people in the process of goal setting, to live a meaningful life and improve well-being.

Privacy and Confidentiality

The participants could complete the questionnaires at a time and place of their convenience including their homes, and therefore it is assumed that they would choose a private place to complete the questionnaires. Each participant's questionnaires were separated from the consent forms to ensure anonymity of the data. The coding of the qualitative data and the capturing of the quantitative and coded qualitative data were done anonymously.

The anonymised data were stored on a password-protected computer in locked offices of the North-West University. The current affiliated study made use of group scores and the participants were identified during the analysis of the data or the reporting of the results of the current study. The statistical analyses of the current study are stored on a password-protected computer of the student researcher.

Management, Storage, and Destruction of Data

The following steps were and will be taken to ensure data integrity: Statistical Consultation Services captured the data from the Likert-type questionnaires twice and checked for discrepancies. The electronic dataset was then sent to Prof. M.P. Wissing, the FORT3 PI and to Dr L. Schutte (collaborator). The hard copies were collected from Statistical Consultation Services.

Coders trained in the EHHI coding system signed a confidentiality agreement and coded the qualitative data. One coder coded the data and the other coder checked it. If the coders differed on the code to be used, they discussed it and checked if consensus could be reached. If not, the FORT3 PI made a final decision. The international EHHI team added appropriate codes to the coding system in cases where codes did not exist. These codes were captured twice independently by trained research interns who signed confidentiality agreement forms. Dr Schutte (FORT3 collaborator) developed a checking function in Excel to check if the codes corresponded. If any differences occurred, the responses were captured again. The process was overseen by the FORT3 PI. The coding was done at the coders' homes on hard copy versions of the questionnaires. These questionnaires were then handed one pile at a time to coders. After the coders were done with a pile, it was handed back to the FORT3 PI and collaborator, whereafter a next pile was handed to them. After the codes were finalized, it was captured twice by two trained independent research assistants who signed a confidentiality agreement. Discrepancies in data capturing were checked against the original questionnaires and the correct code was captured.

To this purpose, a checking function was developed in Excel by Dr Schutte (FORT3 collaborator) to check if the codes of the two instances of data capturing corresponded. If there were any differences, the responses were captured again. The process was monitored by the PI and the collaborator at all times.

The capturing of the codes was done on computers in a locked office on the premises of the North-West University at the Africa Unit for Transdisciplinary Health Research (AUTHeR) in building G16 under the supervision of the PI and the collaborator. The hard copies of the questionnaires with the codes on were locked up in cupboards in locked offices of the North-West University. After the data were captured, the data were removed from the computers of the data capturers. The hard copies are stored in a locked room in a building on the premises of the North-West University. The FORT3 PI and collaborator monitor the hard copies access. Dr. Schutte, who is the collaborator and a statistician and is experienced in data cleaning and management, merged the quantitative and qualitative data.

The electronic data are password-protected and kept by the PI and collaborator to ensure the integrity of the data. If a change has to be made to the data, the PI and collaborator communicate in writing with each other and the updated dataset is shared to make sure both have the newest version on their computers. If the need arises that a statistical consultant of Statistical Consultation Services is required to assist with the data analyses, the PI or collaborator send the data from their computers to the relevant statistical consultant of the Statistical Consultation Services, who has a professional duty to safeguard the data integrity. The FORT3 collaborator (Dr Schutte) analysed the data for this study and the student and other team members who are involved only received the output from the analyses for the specific study. No access to the original data will be allowed. The FORT3 data will be destroyed six years after the last publication according to NWU policies on disposal of data and record management. If there should be an incident of any nature, this will be reported directly to the supervisor and co-supervisor.

Monitoring of Research

To assure that the approved protocol is complied with, the FORT3 PI, collaborator, and supervising team have ensured that the research done by the student was completed in

line with this protocol and in an ethical manner. Please see the section for details on data management and destruction of data (section 4.6.10). An annual monitoring report will be submitted to the HREC of the North-West University (section 4).

Competence of Researchers

The study supervisor of this study Ms. Christelle Liversage is a lecturer at AUTHeR who holds an MA in positive psychology (MAPP). Her training in the MAPP-course equipped her with a thorough background in positive psychology and her own research project related to the topic at hand. She was trained in research methodology as part of the MAPP-programme, where methods related to the methods used in the current study was taught. She is currently pursuing a PhD in health sciences in positive psychology.

The study co-supervisors are Dr Lusilda Schutte and Prof. Marié Wissing. All statistical analyses for the current study will be done by Dr Lusilda Schutte, a senior lecturer at AUTHeR who holds a PhD in psychology and a master's degree in statistics. She previously worked as a statistical consultant at the North-West University's Statistical Consultation Services, which equipped her to conduct the analyses for the current study. Her research interests and focus overlap with the content of the current study, which makes her knowledgeable on the topic of research. She is also a registered clinical psychologist.

Prof. Marié Wissing is a senior researcher at AUTHeR who has supervised more than 100 students and has more than 100 peer-reviewed publications. She is the principal investigator of FORT3 and the research topic of the current study overlaps with her research focus. Methodology similar to the methodology used in the current study is being used in a large international study of which Prof. Wissing is a core member. Some of the results of the large study have been published. She holds a DPhil in psychology and is a registered clinical psychologist.

The student researcher has a BEd (Hons) in learner support and has completed the course work of the MAPP in 2016 and attended the four weeks of MAPP classes at the NWU. She was trained in research methods as part of the modules of this degree. The ethics training at the NWU brought new understanding to doing research. As a whole, this research team is deemed qualified and equipped to conduct the present study.

Conflict of Interest

Neither the student nor any of the supervisors have a conflict of interest to declare.

Contribution of the Study

A possible contribution of this study is that it may provide input to the scientific knowledge of psychosocial well-being in the South African context with the potential of focusing on interventions on the aligning of goals and meaning to improve well-being.

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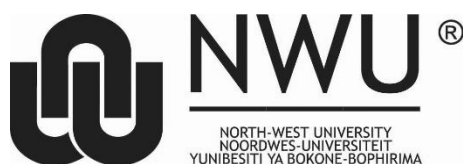
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Approval letter of the Scientific Committee

Privaat sak X1290,

Potchefstroom Suid-Afrika 2520

Tel: 018 299-1111/2222

Faks: 018 299-4910

Web: <http://www.nwu.ac.za>

AUTHeR

Tel: (018) 299 2093

E-pos: Lanthe.Kruger@nwu.ac.za

17 October 2018

AUTHeR SCIENTIFIC COMMITTEE APPROVAL LETTER

Dear Chair and members of the NWU-Health Research Ethics Committee (HREC)

Please find herewith the approval letter to acknowledge that the below mentioned study underwent critical quality review by members of the AUTHeR Scientific Committee and has been granted approval for review by the HREC:

Title:	Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables
Student Name/Researcher	Antonette du Preez
Supervisor:	Ms Christelle Liversage
Co-supervisor	Prof Marie Wissing and Dr Lusilda Schutte
Date of the meeting	17 October 2018
Reviewers	Profs Petra Bester & Lanthé Kruger and Dr Kyla Forbes-Biggs
Final date of approval	01 November 2018

Signature of the chairperson

Date: 01/11/2018

Date: 01/11/2018

Signature of the director

Approved HREC application

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Faculty of Health Sciences Ethics Office for Research, Training and Support

health-sciences.ac.za/healthethics

HREC Health Research Ethics Committee (REC-130913-037)

Standard Full Ethics Application Form

to apply for the approval of **single** or **larger**

health and **health-related** scientific projects involving **human participants**

and **biological samples** of **human origin** for research or education/training

HREC 01-01a, version Nov 2016

CONFIDENTIAL! This document contains confidential information that is intended exclusively for the applicant(s), the Health Research Ethics Committee (HREC) of the Faculty of Health Sciences of the North-West University and the designated reviewers. Should this document or parts thereof come into your possession in error, you are requested to return it to the HREC without delay or destroy it. Unauthorised possession, reading, studying, copying or distribution of this material, or any other form of abuse, is illegal and punishable.

NWU Ethics Number:

(issued upon 1st submission)

NWU 00004-19-S1

Instructions and recommended path for the completion of your application:

- a. The research proposal forms the base document that is evaluated in conjunction with this application form. This application form gives the researcher the opportunity to expand on specific ethical issues required for approval.

- b. All applicants complete § 1,2,3,4,5 and 7
- c. Select and complete the research-specific sub-sections from § 6 as applicable to the specific requirements of your study (utilise the table of contents).
- d. Ensure that a proposal that has been approved by an appropriate Scientific/Research Proposal Committee is attached to the application form as well as proof of its approval according to the standardised template (see § 4.1).
- e. Also attach an executive summary of the study (see § 1.1.6).
- f. The applicants should ensure that a copy of the informed consent form for approval, that has been compiled according to the informed consent template and checklist supplied by the Faculty of Health Sciences Ethics Office for Research, Training and Support, is submitted with the ethics application form.
- g. Any questionnaires or interview schedules that will be used in the completion of the study have to be attached
- h. Any advertisements that will be used in the study have to be attached
- i. Attach any permission letters received from governing bodies.
- j. Attach any contracts with collaborators/sponsors.
- k. For applications of collaborative studies being conducted on more than one site, it is required that copies of the proposal and the informed consent forms from all centres involved in the study are included with the application.
- l. Attach a 2-page narrative CV for each of the researchers involved in the study.
- m. Liaise with the appropriate officials and colleagues mentioned in § 0, complete and sign a printed copy.
- n. Submit scanned copies of the signed pages.
- o. Include copies of proof of ethics training for all researchers involved in the study (not older than three years).

- p. Submit the completed Ethics Application Form (with all the required attachments) via e-mail to Ethics-HRECApply@nwu.ac.za.
- q. All required documentation (as previously outlined) should be attached separately to the aforementioned e-mail as indicated in point p.
- r. Applicants must please ensure that all required finalised documents as indicated above are included with the application. **No additional attachments or version correction(s) will be accepted.** If this does occur and the application was incomplete then it will have to be resubmitted with the application form and all the required attachments which could mean that the application may miss the deadline for the closing of the agenda for the HREC meeting.

NWU Ethics Number			
NWU 00004-19-S1			
Campus	Potchefstroom	Faculty	Health Sciences
Principle			
Investigator/Study	Mrs C.Liversage	Research	AUTHeR
Leader		entity	
Study Title	Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables		

Section 1: Study identification

Provide the necessary descriptions below to identify this study application:

Full, descriptive title of the study

Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables Click here to enter text.

Name of the Study Leader/Primary investigator NB! Not the student's name

Mrs C. Liversage

Name and Surname of the Student (if applicable)

Antonette du Preez

Student number

11080655

Discipline e.g. Consumer sciences

Positive Psychology

Type of study

Single study	☐
Larger study	☐
Single study affiliated to another study	☒
Educational	☐
Other: Specify Click here to enter text.	

In this study use is made of

Mark ALL options as “Yes” or “No” with X in the appropriate box – more than one option may be marked as “Yes”.

Description	Yes	No
-------------	-----	----

Human participants (subjects)	Qualitative	☒	☐
	Quantitative	☒	☐
	Mixed method	☒	☐
	Other e.g. program evaluation	☐	☒
Filed privileged information (e.g. medical files) or stored biological samples of human origin (e.g. samples collected for another study or medical diagnosis)		☐	☒

Envisaged commencement and completion date of the study

More information

Here you can indicate the expected commencement and ending dates of the study, which may be anything from a day to a few years. The full expected duration of the study must be filled in below. Even if the expected duration of the study is uncertain, you can still make an estimate here and report the progress with the annual report. Ensure that the commencement date is at least a few weeks after the date of the HREC meeting at which your application is to be reviewed. The HREC will only grant ethics approval for a one year period. If the study should take longer, a monitoring report requesting permission for continuation must be submitted to the HREC two months before the expiry of the study.

Commencement Date	Completion Date
2017/02/01	2019/06/30

Section 2: Study classification

Complete every option of all the questions in this section. This section is used to classify your study and select suitable reviewers.

Name of the Ethics Committee handling the application

Health Research Ethics Committee of the North-West University

Dates of applications

Fill in below the date of the first submission and revised submission (*of applicable*) of this ethics application

Date of first application	Date of revise application (<i>if applicable</i>)
2019/01/21	Click here to enter a date.

Version number

Fill in the number of times this application has been submitted.

Version	1
---------	---

Estimated risk level

Please indicate the estimated risk level of the research by using the two risk level tables indicated for adult human participants or children/incapacitated adults.

Estimated risk level for adult human participants	
Minimal risk	☒
Medium risk	☐
High risk	☐
Estimated risk level for children/incapacitated adults	
No more than minimal risk of harm (negligible risk)	☐
Greater than minimal risk but provides the prospect of direct benefit for the child/incapacitated adult	☐

Estimated risk level for adult human participants

Greater than minimal risk with no prospect of direct benefit to the child/incapacitated adult, but a high probability of providing generalizable knowledge

☐

Context of the Study

Mark ALL options as “Yes” or “No” with X in the appropriate box – more than one option may be “Yes”.

Description		Yes	No
Scientific Research	Study falls within a research entity	☒	☐
	Study falls outside a research entity	☐	☒
	Study includes postgraduate students (e.g. masters or doctorate)	☒	☐
	Study includes contract work	☐	☒
Education and training (e.g. undergraduate practicals)	For staff of the North-West University	☐	☒
	For students (undergraduate or postgraduate learners)	☐	☒
	For other learners (not associated with University)	☐	☒

This study encompasses aspects that require additional ethical explanation

Mark ALL options as “Yes” or “No” with X in the appropriate box – more than one option may be “Yes”. If a specific option is marked please complete the corresponding section in Section 0.

Description	Yes	No
Vulnerable participants	☐	☒

Description	Yes	No
Infection, genetic modification and commercialisation of cell and tissue lines	☐	☒
Use of drugs / medicines	☐	☒
Use of drug delivery systems	☐	☒
Use of food, fluids or nutrients	☐	☒
Use of radio-active substances	☐	☒
Use of toxic substances or dangerous substances	☐	☒
Measuring instruments and questionnaires that need psychometric interpretation	☒	☐
Possible impact on the environment	☐	☒
Any other aspect of potentially ethically sensitive nature (specify below)	☐	☒

Other aspects (specify)

Not applicable

For this study the following persons will be included in the study team

Fill in the number concerned with ALL options. Ensure that the participant numbers in this table correspond with the individuals indicated in Section 0, 0 and 0.

More information

*The **study leader** is generally viewed as the individual who takes the final responsibility for all aspects of the study e.g. study leader or principle investigator.*

*The **study supervisor** is generally the individual responsible for the day-to-day management of the study.*

Description		Number	
		Local	Foreign
Only for research studies	Study Leader (e.g. study leader/principle investigator)	1	0
	Study supervisor (day to day manager)	0	0
	Co-workers (researchers of the North-West University)	2	0
	Co-workers (researchers outside the North-West University)	0	0
	Co-workers (postgraduate students of the North-West University)	1	0
	Assistants/field workers		0
Only for education and training (e.g. undergraduate practicals)	Educator	0	0
	Co-workers (lecturers of the North-West University)	0	0
	Co-workers (lecturers outside the North-West University)	0	0
	Students (undergraduate learners of the North-West University)	0	0
	Students (postgraduate learners of the North-West University)	0	0
	Other learners (not associated with the North-West University)	0	0
	Assistants/field workers	0	0

Description	Number	
	Local	Foreign
Sponsors	1	0

Other members of the study team not mentioned above (specify)

Not applicable

The following professional supervisory persons are involved in this study (may in no way be directly part of the research team)

More information

Supervisor indicates that the individual is an independent monitor involved during data gathering of the study and acts as an advocate for the participants/patients. (Fill in the number involved in ALL options.)

Researcher / Supervisor	Number	Researcher / Supervisor	Number
Supervisory Doctor	0	Supervisory Psychologist	0
Supervisory Nurse	0	Supervisory Pharmacist	0
Supervisory Psychiatrist	0	Supervisory Social worker	0

Other supervisory person (specify)

Not applicable

I hereby declare that the above information in “Section 0: Study Classification” is complete and correct and that I did not withhold any information.

Yes	No
☒	☐

Remember to save your document regularly as you complete it!

Section 3: Detail of study leader/principal investigator, co-workers and supervisors

Details of Study Leader/Principle investigator

More information

NB! Only NWU staff, or extraordinary professors in collaboration with staff of the North-West University, may register as Study Leaders/Principal Investigators. The Study Leader/Principal Investigator accepts final, overall responsibility for the total study.

Surname	Full Names	Title
Liversage	Christelle	Ms

NWU Campus	Faculty	Research entity/School
Potchefstroom	Health Sciences	AUTHeR

Position	University No.	Professional Registration (body & category)
Lecturer	25734709	Master of Arts in Positive Psychology

Telephone			NWU-box or Postal
Work	Home	Cell	Address

018 299 2519	Click here to enter text.	Click here to enter text.	Internal Box 500
--------------	---------------------------	---------------------------	------------------

E-mail Address

christelle.liversage@nwu.ac.za

[PLEASE ATTACH THE TWO-PAGE NARRATIVE CV OF THE STUDY LEADER]

More information

NB! A 2-page CV in a narrative format, giving a brief overview of:

- *a researcher's qualifications*
- *career path to date*
- *specific research experience applicable to the present study (e.g. methodology or skills required)*
- *supervisory experience*
- *publication list (for the past 4 years)*

Details of Study Supervisor

Is the Study Leader also the study supervisor?

(Please mark with X in the appropriate box.)

More information

*Where the Study Leader is not physically present or consistently available and where supervision of the research activities is necessary, a suitable researcher/lecturer may be designated as **study supervisor**. The study supervisor is part of the study team.*

Yes	No
☒	☐

If “Yes”, this part can be left blank.

If “No” (i.e. if the Study Leader is not the Study Supervisor) give details below.

Surname		Full Names		Title
Click here to enter text.		Click here to enter text.		Click here to enter text.
NWU Campus		Faculty	Research entity/School	
Click here to enter text.		Click here to enter text.	Click here to enter text.	
Position		University no.	Professional Registration (body & category)	
Click here to enter text.		Click here to enter text.	Click here to enter text.	
Telephone			NWU-box or Postal Address	
Work	Home	Cell		
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	
E-mail Address				
christell.liversage@nwu.ac.za				

[PLEASE ATTACH THE TWO-PAGE NARRATIVE CV OF THE STUDY SUPERVISOR]

More information

NB! A 2-page CV in a narrative format, giving a brief overview of:

- *a researcher's qualifications*
- *career path to date*
- *specific research experience applicable to the present study (e.g. methodology or skills required)*
- *supervisory experience*
- *publication list (for the past 4 years) (if applicable)*

Professional Supervisors

This section is completed if applicable and mentioned in Section 0.

More information

Professional supervisor does not refer to the study leader or the study supervisor. In all cases where medical emergencies may possibly arise, the physical presence of a doctor and a registered nurse is required. For the drawing of blood samples (e.g. diet manipulation and similar studies) the presence of a registered nurse is sufficient.

1.1.1 Name and qualifications of all supervisory professional persons

Name	Qualifications	Professional Registration	Function
Not applicable	Not applicable	Not applicable	Not applicable

(Type one name per row, or type "Not applicable" if there is no supervisory person.

In last table cell, click on [tab] to add another row)

[PLEASE ATTACH THE TWO-PAGE NARRATIVE CV OF THE PROFESSIONAL SUPERVISOR/S]

More information

NB! A 2-page CV in a narrative format, giving a brief overview of:

- *a researcher's qualifications*
- *career path to date*
- *specific research experience applicable to the present study (e.g. methodology or skills required)*
- *supervisory experience*
- *publication list (for the past 4 years) (if applicable)*

Other Members of the Study Team

Names, qualifications, professional registration and functions of all the other co-workers (researchers, postgraduate students in the case of a research study, or lecturers (in the case of training) and assistants/field workers who form part of the study team) should be indicated.

The information given in this table should correspond with the number of team members given in Section

Name	Qualifications	Professional Registration	Function
C. Liversage	MA Positive Psychology		Supervisor
L.Schutte	B.Sc., Honours B.Sc., Honours B.Sc Statistics. M.Sc.,PhD	HPCSAClinical Psychologist	Co-supervisor
M.P. Wissing	D.Phil., Drs. Phil	HPCSAClinical Psychologist	Co-Supervisor

Name	Qualifications	Professional Registration	Function
A. Du Preez	HED., BA., Bed Hons	SACE	Student

Note: Type one name per row, or type “none” if there is no other team member.

[PLEASE ATTACH A TWO-PAGE NARRATIVE CV FOR ALL THE MENTIONED RESEARCH TEAM MEMBERS IN THIS SECTION]

More information

NB! A 2-page CV in a narrative format, giving a brief overview of:

- *a researcher's qualifications*
- *career path to date*
- *specific research experience applicable to the present study (e.g. methodology or skills required)*
- *supervisory experience*
- *publication list (for the past 4 years)*

Conflict of Interests and Sponsors (if applicable)

1.1.2 Declare with full details any conflict of interests that any member of the study team or professional supervisor (see § 0, 0, 0 and 0) might have.

More information

Examples of conflict of interest: financial, non-financial: intellectual, bias, overly optimistic promises of potential benefits, role of the researcher/s, desire of professional advancement, desire to make a scientific breakthrough, relationship with participants.

Name of Researcher	Complete description of the conflict and how it will be managed
Not applicable	Not applicable

Note: Type one name per row, or type “Not applicable” if there is no member of the study team or professional supervisor with a conflict of interest.

1.1.3 Give full details of all sponsors of the study.

Name of Sponsor	Contact Details	Affiliation & Contribution	Nature & Extent
NWU	North West University Potchefstroom	Bursary towards study fees.	R20 000 awarded for 2017, 2018.

Note: Type one name per row, or type “Not applicable” if there are no sponsors. Add extra rows to the table if required.

1.1.4 Is any participant in the study directly or indirectly involved with one or more of the sponsors or the researchers? Give full details.

Name of Participant	Association with Sponsor/Researcher
Not applicable	Not applicable

Note: Type one name per row, or type “Not applicable” if there are no such participants. Add extra rows to the table, if required.

1.1.5 Does any member of the study team receive any form of remuneration or other benefits from the sponsor(s), either directly or indirectly? Give full details.

Name of Team Member	Details
Prof. M.P. Wissing	Principle investigator for the FORT3 project which is partially funded by the NRF.

Note: Type one name per row, or type “Not applicable” if there are no such team members.

Add extra rows to the table if required.

Collaborations (if applicable)

Declare with full details all collaboration agreements, e.g. with researchers or lecturers from another institution, national or international, who will be working on a defined section of the study.

More information

Your local team may collaborate with a team from a different national institution in South Africa or internationally, and thereby incorporate and benefit from their expertise and/or facilities. Typically, in such cases, functions and responsibilities differ for certain parts of the study. These functions and responsibilities must be fully described.

Name of Collaborator	National/International (Indicate which)	Full Description of functions and responsibilities
Not applicable	Not applicable	Not applicable

Note: Type one name per row, or type “Not applicable” if there are no contractors. Add extra rows to table, if required.

Contractual Agreements (if applicable)

Declare with full details all contractual agreements (e.g. with team members, collaborators and sponsors) on the study. Please note: A copy of any contractual agreements must be submitted to the Health Research Ethics Committee, together with the submission of this application. Add extra rows to the table, if required.

More information

Sometimes there are contractual obligations with co-workers or organisations outside the University. These contractual obligations may e.g. place restrictions on certain aspects on

the availability of raw data i.t.o. intellectual right of ownership. Particularly where foreign co-workers are involved, these contracts can get complex. Therefore you must indicate here what these contractual obligations encompass, whether the University approved and sanctioned it and declare and describe any other potential legal and ethical implications thereof.

Name of Contractor	Full Description of the agreement
Not applicable	Not applicable

Note: Type one name per row, or type “Not applicable” if there are no contractors. Add extra rows to the table, if required.

[PLEASE ATTACH ALL CONTRACTUAL AGREEMENTS]

Confidentiality

Note: Other people involved in the research that could pose a risk to confidentiality should sign confidentiality agreements e.g. transcribers and co-coder/s.

[PLEASE ATTACH ALL CONFIDENTIALITY AGREEMENTS (SEE CONFIDENTIALITY AGREEMENTS AS APPROVED BY THE LEGAL OFFICE OF THE NWU)]

Indemnity

Note: If people are involved in the research as part of the research team but are not as staff on the payroll of the university or by contract on the payroll of the university, they will not be covered by the insurance of the university and have to sign an indemnity form.

[PLEASE ATTACH ALL INDEMNITY FORMS (SEE INDEMNITY FORMS AS APPROVED BY THE LEGAL OFFICE)]

Remember to save your document regularly as you complete it!

Section 4: Research proposal and scientific committee approval

Executive summary and research proposal

1.1.6 Executive summary of the study

Provide an executive summary (maximum 150 words) of the study in the following format:

- brief problem statement (approx. 3 sentences)
- aims and objectives of the study
- study design and method

Key constructs in the process of human flourishing towards well-being are goals and meaning. These constructs have been studied individually, but limited studies are available on how they are aligned in various domains of life. Research on the alignment or concordance of goals and meaning in the spirituality domain of life is scarce, and no literature on the associations with socio-demographic variables in a South African context could be found.

This study aims to address this gap and is an affiliated study of the FORT3 research project making use of data already gathered. The FORT3 research project investigated the prevalence of levels of psychosocial health with regard to the dynamics and relationships with biomarkers of (ill) health in a South African social context.

The aim of this study is to explore the patterns of concordance of goals and meaning in the spirituality domain, and how these patterns are associated with demographic variables. A mixed methods convergent parallel design will be used with simultaneous cross-sectional collection of quantitative and qualitative data. A possible contribution of such a study can be

that it provides knowledge for the development of well-being interventions toward the facilitation of eudaimonic well-being in life.

1.1.7 Proposal

Note: For each study a descriptive proposal has to be submitted and is used as the main document for evaluation. The proposal should reflect the ethics of the research throughout.

Attach a proposal approved by the Scientific/Proposal Committee of your research entity.

[ATTACH THE RESEARCH PROPOSAL]

1.1.8 Scientific/Proposal Committee approval

This study should have been reviewed and approved by a Scientific/Proposal Committee.

More information

The proposal needs to be approved by a Scientific/Proposal Committee before it will be reviewed by the HREC. The HREC relies on the scientific expertise of this committee regarding the evaluation of the scientific merit and design of the study.

Yes	Details	
☒	Name of formal Scientific/Proposal Committee:	AUTHeR
	Title, initials and surname of all of the members of Scientific/Proposal Committee present during the review.	Prof. P. Bester Ass Prof. L. Kruger Dr. N. Claassen Dr. K. Forbes-Briggs Dr. H Myburgh
	Date of approval:	2018/11/01
No	Reason:	Not applicable

Yes	Details	
☒	Name of formal Scientific/Proposal Committee:	AUTHeR
	Title, initials and surname of all of the members of Scientific/Proposal Committee present during the review.	Prof. P. Bester
		Ass Prof. L. Kruger
		Dr. N. Claassen
Dr. K. Forbes-Briggs		
	Dr. H Myburgh	
	Date of approval:	2018/11/01
☐		

1.1.9 Letter confirming approval of protocol

The HREC has to have proof of confirmation of approval by the Scientific/Proposal Committee.

[ATTACH CONFIRMATION OF APPROVAL OF THE STUDY PROPOSAL BY THE SCIENTIFIC/PROPOSAL COMMITTEE ON THE MANDATED TEMPLATE.]

Remember to save your document regularly as you complete it!

Section 5: Additionally required information about ethical implications of the research not provided in the proposal

Note: The information contained in this section is *additional* to what is contained in the proposal.

What will be expected of participants during data gathering?

What will be expected of participants during data gathering e.g. a one hour interview, venepuncture, needle prick, etc.

More information

Highlight what participants will be expected to do and what will be done to them, and how long it will take? This includes aspects such as procedures, sample collections and methods of information gathering and what the probable associated experience of participants will be. Provide particular details on any step that might violate privacy e.g. having to undress. This section supports you in the completion of the section in the informed consent form entitled, “What will your responsibilities be?”

Participants were asked to complete a selection of questionnaires with reference to psychosocial well-being, which took approximately 30 minutes to complete. Although the questionnaires relate to well-being, some items could evoke emotional responses from participants. Therefore, debriefing was available if any participants needed it. Such participants would have been given the telephone numbers of counsellors or psychologists who were requested to assist the participants, but none of the participants indicated such a need. This study will only involve the use of previously collected data and therefore there are no additional expectations on participants.

Risks and precautions

Name and explain *all the possible risks* for *all procedures* that the participants might experience during the research. Use the template at the back of the approved risk level descriptor document to guide you into identifying all the possible types of risk as well as the probability and magnitude of harm. Ensure that you also include reference to various biological sampling techniques e.g. venepuncture, buccal swabs etc. By completing this section it will help you to answer the two sections on “Are there risks involved in your taking part in research?” and “What will happen in the unlikely event of some form of harm

occurring as a direct result of your taking part in this research study?” in the informed consent form.

Risks (e.g. physical, psychological, social, legal, economic, dignitary and community) Identify all the possible risks.	Precautions (When describing these precautions be clear on how they will mitigate all the identified risks)
Psychological	Although the battery focused on positive aspects of life there may be minimal risk as the completion thereof could elicit emotional reactions from the participants. If the response was negative the participant could ignore the question or was free to withdraw from the study. Debriefing was offered for participants who needed it. Although no participants indicated a need for debriefing or referral, the option of referral was made and psychologists were available. The risk in the affiliated study for the participants was considered minimal since the content of the questionnaires focussed on positive mental health.

Benefits for participants

Describe 1) the potential *direct* benefits that the study might hold for the *individual participants*; or 2) the *indirect* benefits that the study holds for the *society at large* or for *the researchers and the organisations/institutions* they are working for, through the knowledge

gained. By completing this section it will help you to answer the section on “Will you benefit from taking part in this research” in the informed consent form.

Direct benefits for participants	Indirect benefits for society at large or for the researchers/institution
There were no direct benefits for the participants, but the test battery created an opportunity to reflect on the meaning, goals and relationships in their lives. This direct benefit explanation applies to the current study as well.	This affiliated study may promote a comprehensive understanding of goals, in a spiritual domain and why they are important and how they link to meaning profiles, contributing to theory at a knowledge level, and on a practical level to the facilitation of well-being via goal development and motivation interventions. These interventions may be used to contribute to well-being in South Africa in personal, community and work contexts and indicates the role of spirituality.

Risk/benefit ratio analysis

The overall benefits should, in general, *always outweigh the risks*, for a study to be considered ethical. If this is not the case, there needs to be a *strong justification* for why research ethics approval should be given.

Benefit outweighs the risks	☒		
Risks outweigh the benefit	☐	Justify:	Not applicable

Facilities

Describe the place(s) and facilities in detail where the study will be implemented. This description is applicable to both institutions and the community. Also describe the availability of measures to handle emergencies in an applicable manner and how this will be executed.

Participants could complete the questionnaires in their own time at a place convenient to them. All participants were given the opportunity to obtain contact details of qualified professionals to provide debriefing if needed but did not indicate such need.

Legal authorisation

Describe in detail *which bodies* must grant legal authorisation for this study (e.g. Department of Health, Medicine Control Council, etc.). Mention *whether authorisation has already been obtained*, with reference to attached proof, or *how you will go about* getting authorisation before the study commences.

Conditional approval will be granted to obtain this authorisation but the study cannot commence before the HREC has received the final documents.

Not applicable

[PLEASE UPLOAD ALL DOCUMENTS INDICATING LEGAL AUTHORISATION]

Goodwill permission /consent

Describe in detail *what interest group representatives* must give permission for this study (e.g. community leaders, church leaders, tribal chiefs or other). Also mention *whether permission has already been obtained*, with reference to attached proof, or *how you will go about getting* permission before the study commences.

Conditional approval will be granted until proof of goodwill permission has be granted but the study cannot commence before the HREC has received the final documents.

Not applicable

[PLEASE UPLOAD ALL LETTERS OF GOODWILL PERMISSION]

Criteria for participant selection and recruitment

Describe in full which inclusion and exclusion criteria will be used to select participants and justify each of your choices. If you include one of the following in your exclusion/inclusion criteria, the need for it in the research has to be justified i.e. *race or ethnic origin, person's health or sex life, a person's inherited characteristics or biometric information*. Ensure that your exclusion criteria are not merely the opposite of the inclusion criteria.

Inclusion criteria	Justification
Selection of participants was fair and just - no persons were unfairly excluded. Inclusion criteria of the FORT3 study: The inclusion criteria for the participants stipulated that they should have at least secondary education, be older than 18 years of age, and have sufficient skills in reading and writing English. Selection of participants was fair and just - no persons were unfairly excluded.	FORT3 study: The criterion of secondary education was applied to increase the likelihood that participants had a good comprehension of the measures. Sufficient fluency in English enhanced the likelihood that participants were able to interpret and complete the questionnaires. Being 18 and above years of age enhances the probability of sufficient cognitive and reflective abilities for the participant to provide accurate data on the questions posed. The criterion of South African resident ensured that participants function within the South African context (similar data were collected in other countries as part of a collaborative multi-

Inclusion criteria	Justification
	country study which have comparative aims. The present study will only include the South African data.) Affiliated study: The participants (N=585) were 18 years or older, had at least Grade 12 level of education and had to be fluent in English. The participants were an adult South African group who were between 18 and 60 years of age; (18-25 years of age [N=51]; 16-40 years of age [N= 23]; 41-60 years of age [N=304]; 41-60 years of age [N=304] and over 60 years of age= 1 did not answer the question. The participants reported different levels of education; secondary education [N=220] and tertiary education [N=361]. There were 4 who did not answer the questions. The different levels of standard were indicated as below average N=32], average [N=385] and above average [N=147]. 21 did not answer the question. The marital status of the participants was the following: single [N=145], married [N=367], cohabitating [N=19], separated [N=34] and widowed

Inclusion criteria	Justification
	[N=11]. Nine participants did not answer the question.
Exclusion criteria	Justification
There were no specific exclusion criteria	N/a

Participant recruitment

Recruitment of human participants must take place within a specified time frame/schedule (i.e. specified starting and ending date) and cannot continue indefinitely. Explain how you will go about recruiting the participants.

More information

This process should take place in such a way that the participants do not feel intimidated by the process or implicitly “bribed”, but decide absolutely voluntarily to participate. It should be fair and equitable. Include aspects of community entry e.g. advertisements, community advisory boards and the use of gatekeepers and mediators etc.

The data that will be used in this study was gathered as part of the FORT3 project.

Participants consisted of a multi-cultural adult South African non-probability sample ($N = 812$). Data for the FORT3 study was obtained by post-graduate students who acted as fieldworkers under supervision of the researchers after they were trained in the administration of psycho-social well-being measures. A nonprobability method of recruiting participants was used, where the fieldworkers identified people within their communities who adhered to the inclusion criteria. These people were invited by the fieldworkers to participate in the study, without using any coercion, pressure or manipulation. These people

were also asked, if possible, to identify other potential participants from their communities who fitted the inclusion criteria and may be interested in participating in the study. The contact details were then given to the fieldworker, who followed up these references. Prior to handing the informed consent form or research battery to participants, the field workers checked that participants adhered to the inclusion criteria of FORT3. This snowball method of sampling allowed for accessing participants who adhered to the inclusion criteria of the study and assisted in adding diversity to the sample, which made it the sampling method of choice.

Once it was ascertained that the participant understood the aim of the research as well as the ethical aspects, they were given time to decide whether they wanted to participate in the study. The participants were allowed as much time as they wished to decide whether they wanted to participate and access to the researchers were ensured by providing the participants with the contact numbers of the principal investigator and research team in case they wanted to ask questions. If they confirmed that they were willing to join the study, they were asked to complete a consent form and thereafter the test battery at a time and place of their convenience, after which they handed the completed questionnaires back to the field workers. Participants were given the opportunity to obtain contact details of qualified professionals to provide debriefing should they feel the need. The fieldworkers returned each participant's documents to the researchers, who then assigned a unique identifier to each questionnaire and separated the informed consent forms from the completed questionnaires before data capturing in order to ensure the participants' anonymity.

In the present study, data will be selected for secondary analysis from the existing FORT3 data set.

Informed consent (consent, permission, assent and dissent)

The focus in this section is on a detailed informed consent *process description*. According to law all participants must be fully informed about the implications and risks associated with participation in the study.

More information

How will you go about contacting them and explaining the study and accompanying implications to all participants? Ensure that participants are aware that participation in the research is voluntary and that they may withdraw from the study at any time. Where research is not carried out in participants' mother tongue, explain how you will go about conveying the information in an understandable manner. Where participants are not literate, a witness should be involved in obtaining informed consent. Be clear on who will obtain the informed consent (independent person) and how the researcher will be included to explain the research and answer questions. Discuss the role of the independent person. For your convenience you can use the template for informed consent as well as the accompanying checklist. Be clear on your description of the use of consent, permission, assent and dissent. For minors ensure that parental permission and child assent or adolescent consent (where applicable) is obtained for all participants.

Participation in the FORT3 project was completely voluntary and participants were free to withdraw from the study at any stage without consequence. Participants were informed about the aim and purpose of the research; what the data will be used for; and how it will be stored, both verbally by the trained fieldworkers and in writing. The participants could ask questions of the field worker or the researchers, whose contact details had been made available. Volunteers who agreed to participate were given an informed consent form by the fieldworker. Participants could complete the questionnaires in their own time at a

place convenient to them, returning it to the fieldworker upon completion. We are aware that the newest ethical rules require participants to receive the informed consent form at least a week before participation. These prescriptions did not hold at the time of data gathering, and therefore the data gathering did not take place under these conditions. Since participants were allowed to complete the informed consent form and the test battery at a place and time of their convenience, it is reasonable to accept that they had sufficient time to consider participation. Participants who decided to participate in the study submitted the written consent forms separately from the anonymously completed questionnaires in sealed envelopes to the field workers in order to ensure privacy and anonymity. The field workers handed the sealed envelopes to the researchers. Since participants gave consent for their responses to be used in the FORT3 project, in which all ethical guidelines were adhered to, and since the aim of the present study is aligned with the aims of the FORT3 research programme, no further consent needs to be sought for the affiliated study.

[PLEASE UPLOAD YOUR INFORMED CONSENT FORM FOR APPROVAL AND THE INFORMED CONSENT CHECKLIST]

Incentives and/or remuneration of participants

Is any form of incentive and/or reimbursement offered to the participants?

If “Yes”, describe it in full in terms of *what, how, where, when, how much, terms and conditions*, etc. Remember to work according to the TIE principle (time, inconvenience, expenses e.g. transport and meals).

If no remuneration is offered, *justify why this is not the case* (Please mark with X in the relevant block and provide details).

Yes	No	Description
☐	☒	There were no incentives or remuneration offered to the participants in the study. This was not an ethics requirement at the time the data was gathered. Although it might be that, should a similar study be conducted now, a small token of appreciation can be offered for participation, we consider it ethically justifiable to say that participants were not exploited by not being offered incentives or remuneration for participation in the study, because this was a study with minimal risk, participants completed the questionnaires at their homes or at a place of their convenience and therefore did not incur any costs to participate in the study, participation involved minimal inconvenience, took only 30 minutes of participants' time, and the study offered the possibility of self-reflection on positive aspects such as well-being, meaning in life and one's life goals.

Announcement of study results to participants

Indicate *what, how, when and to whom* you will communicate the results of the study to the participants.

What?	Although the results of the study will not be communicated to the participants themselves (no contact information of the participants was collected during data gathering of the FORT3 as communication of the results to the participants as such was not a prerequisite when data was gathered for FORT3), the data will be disseminated to the academic and public audience in different ways. See next point for more details. The data will be disseminated to academics. Publication of results in an academic journal
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How?	The results and findings will be submitted to a scientific and recognised journal within the field of Positive Psychology for publication. The results will also be integrated with findings of the FORT3 project that will be published in the lay press and disseminated using other media, such as radio interviews. Findings will also be offered to people in the current work context of the student-researcher (educators). The information can also be given to volunteers in this field to be of guidance and bring understanding in the spiritual domain.
When?	When study is complete.
To whom?	Public, educators, local community of student researcher, academics

Privacy and Confidentiality

Explain how you will ensure both privacy and confidentiality throughout the research.

Privacy

Privacy is concerned with who has access to *personal information and records* about the participant as well as *privacy during physical measurements* e.g. anthropometric measures or *psychological procedures* e.g. interviews/focus groups. Explain how privacy will be ensured in your study.

The participants completed the questionnaires anonymously. The signed written consent forms were handed in separately from the questionnaires and the data was captured anonymously and stored on password protected computers in locked offices at the North-West University at AUTHeR Building G2. To further ensure anonymity, interpretation will only be done on group scores and participants will in no way be identified during the analysis of the data or the reporting of the results of the current affiliated study. Since participants had the freedom to choose the time and place of participation, it is reasonable to assume that they would have each chosen a setting with sufficient privacy. Only

authorised researchers have access to the databases. The capturing of the quantitative data as well as the coding of the qualitative data were therefore done anonymously. This electronic data that were captured, was stored on password protected computers in locked offices on the premises of the North-West University. Only the data on group scores will be analysed and therefore no participant will be identified during the reporting of the results.

Confidentiality

Confidentiality ensures that *appropriate measures* will be implemented to *prevent disclosure of information* that might identify the participant either during the course of the research or afterwards e.g. anonymising data or pooling results. Explain how confidentiality will be ensured in your study.

After data collection, the participant's informed consent form was separated from the questionnaire to ensure confidentiality. The capturing of the quantitative data as well as the coding of the qualitative data were therefore done anonymously. After data collection the participant's information and the consent forms was separated from the questions to ensure confidentiality. This electronic data that was captured, was stored on password protected computers in locked offices on the premises of the North-West University. At AUTHeR in building G2. Only the data on group scores will be analysed and therefore no participant will be identified during the reporting of the results.

Management, storage and destruction of data/biological samples

Describe how you will manage the collected data/biological samples as well as the storage thereof.

Data/biological samples management

For management of data/biological samples, indicate:

- what data/biological samples will be stored
- how it will be stored

- how data in its various forms will be managed e.g. questionnaires, recorded interviews or biological samples
- who will manage the data/biological samples storage
- who will have access to the stored data/biological samples
- how will data be regained from other research team members
- and if data sharing is to occur, how will this be managed?

Ensure that you refer to both *electronic* and *hard copy versions* of data as well as *biological samples*.

The data integrity was and will be ensured as follows: The data from the Likert-type questionnaires were captured by the North-West University's Statistical Consultation Services who captured data twice and checked for any discrepancies, where after the electronic dataset was sent to the FORT3 principal investigator (PI) (Prof.MP Wissing) and collaborator (Dr.Lusilda Schutte). The FORT3 PI/Collaborator collected the hard copies of the questionnaires from Statistical Consultation Services. The qualitative data was coded and checked by a co-coder who were both trained in the EHHI coding system. Both coder and co-coder signed confidential agreement forms. Any differences were discussed and if consensus could not be reached, the FORT3 PI was involved to make a final decision. In cases where codes did not exist for the response, this matter was taken up with the international EHHI team, who then added an appropriate code to the coding system. Once codes were finalised, the codes were captured twice and independently by trained research interns who signed confidential agreement forms. This process was overseen and monitored by the FORT3 PI and collaborator. The coding and code checking were conducted on the hard copy versions of the questionnaires, which were handed to coders one pile at a time.

Once the coder was done with the pile, it was handed to the FORT3 PI/collaborator.

Capturing of the codes was done on computers that are placed within a locked office on the

premises of the North-West University and the data was locked in cupboards in that office for the duration of data capturing. The captured data was sent to the FORT3 PI and collaborator and the data was then removed from the computers of the data capturers. After data coding and capturing, the hard copies of the questionnaires were moved to cupboards in a locked office of the North-West University where it is stored. Access to the hard copies of the data is monitored by the FORT3 PI and collaborator. The FORT3 collaborator, who is a statistician and competent and experienced in data cleaning and management, merged the quantitative and qualitative data. The FORT3 PI and collaborator keep the electronic data on password protected computers to ensure the integrity of the data. If any of them need to make a change to the data, this is communicated to the other in writing and the updated dataset is shared with the other so that both have the same newest version on their computers. Should the need arise to share the dataset with another person to assist with the data analyses (e.g. a statistical consultant from Statistical Consultation Services), the dataset as stored on the computers of the PI and collaborator will be sent to the relevant person who is, from his professional obligation, responsible to also safeguard the data integrity. Since all analyses for this study will be conducted by the FORT3 collaborator, the student researcher involved will only receive the output from the analyses. She will not have access to the original data. FORT3 data will be destroyed according to NWU regulations after all analyses have been completed and data exhausted – six years after the last publication from this study.

Storage and destruction of data/biological samples

Describe:

- where and how data/biological samples will be stored
- for how long it will be stored
- who will be responsible for storage
- how it will be destroyed?

Ensure that you refer to both *electronic* and *hard copy versions* of data as well as *biological samples*

The original completed questionnaires (hard copies) will be stored in locked offices at the Africa Unit for Trans-disciplinary Health Research (AUFHeR) of the North-West University for six years after the last publication utilising the project data, after which the data will be destroyed by shredding it. Electronic data will be stored on password protected computers of the study leader of the present study and the principal investigator of the FORT3 study for at least six years after the last publication utilising the project data. When the data is no longer relevant, it will be permanently deleted. The PI of the FORT3 study store the data. The Record Plan of the North-West University will determine the destroying date.

Monitoring of research

Describe how you as the researcher will monitor:

- both the implementation and progress of the research
- compliance with the approved protocol
- the management of ethics throughout the research process
- the management of amendments during the execution of the research study, should they be needed
- how incidents and adverse events/serious adverse events (if applicable) will be reported.

The principal investigator of the FORT3 project that this study is linked to (supervisor), as well as the FORT3 collaborator (co-supervisor) will oversee and ensure that the approved protocol and research done will be of ethical nature and correctly applied by the student researcher. See Section 5.14 that explains how data management and monitoring will take place.

Misleading of participants (if applicable)

Is use made of any form of misleading in the research, where the participants are not told the complete truth (e.g. placebo or psychotherapeutic interventions)?

More information

*In the case of using a placebo (e.g. drug or psychotherapeutic intervention), justification has to be provided that there is no alternative treatment with proven efficacy. When such an alternative treatment exists, the **standard of care** should be provided to both the experimental and control group.*

If “Yes”, in either case of using a placebo or during a psychotherapeutic intervention:

- justify in full why it is necessary
- describe how the participants will be protected against potential negative consequences of the placebo or misleading information/action.
- when you will disclose and debrief
- describe how you will disclose to them that they were misled.

Yes	No	Justification	Precautionary measures
☐	☒	Not applicable	Not applicable
		Disclosure	
		When?	How?
		Not applicable	Not applicable

Use of previously collected data/biological samples (if applicable)

When your research study is making use of previously collected data or biological samples, provide a comprehensive description of the following.

What was the purpose of the original collection?

The study forms part of the FORT3 project that aims to understand, among other things, what people's perception and understanding is of well-being and how they experience happiness and meaningfulness. The purpose is to address the gap and is an affiliated study of the FORT3 research project making use of data already gathered. The FORT3 Research Project investigated the prevalence of levels of psychosocial health with regard to the dynamics and relationships with biomarkers of (ill) health in a South African social context. Contextual variables and social-demographic aspects were taken into account.

What will your purpose be?

The ethics of the original study was assured by the fact that the FORT3 study has ethical clearance from the ethics committee (ethics clearance number NWU-00002-07-A2 valid until 2018/08/31, thereafter continuation will be requested by submitting the annual HREC monitoring report). We note that we are aware that data gathering in the original FORT3 project did not comply with all of the current ethics requirements. However, at the time that the FORT3 project was developed, approval was obtained from the relevant ethics committee and data was gathered in accordance with all the rules. Monitoring reports are completed and submitted on an annual basis as required by the Health Research Ethics Committee of the North-West University, which means that the FORT3 project is active and allows for analysis of the already gathered data. Data integrity is ensured by the Principal Investigator of the study and the participants' informed consent covers the research done in this affiliated study. These matters were discussed in consultations with the Head of the Ethics Office and the Chair of the Health Research Ethics Committee of the North-West University's Potchefstroom Campus and it was determined that the current study is ethically acceptable.

Participants of the FORT3 study were informed about the aim and purpose of the research, what the data will be used for and how it will be stored, both verbally by the trained fieldworkers and in writing. Participants were also informed that participation was entirely voluntary; that data would stay anonymous; that they could withdraw from the study at any point without any repercussions or negative consequence; that there is minimal foreseeable risk associated with participation; that responses will only be used as part of a group and only group scores will be used for analyses; the approximate duration of completion of the questionnaires; and how the study will contribute to science and society. An informed consent form explaining the process was provided and after being given a break, which allowed time for the participant to review and/or discuss the details and procedures, participants handed in the written consent forms separately from the anonymously completed questionnaires. The participants could complete the questionnaires in their own time at a place convenient to them.

In the informed consent form (see attachment) the following was stipulated: “We want to understand what people think about their lives and well-being, and how they experience happiness, well-being and meaningfulness. Therefore, we need your assistance and personal view.” The present affiliated study, that aims to explore the goals and motives directing individuals’ goals as they relate to different meaning profiles, fit with what the participants consented to, as it is all about understanding goals and meaning as aspects of well-being.

- Give a description of how research integrity was ensured in the original study by referring to:
 - how informed consent was obtained from participants
 - what they consented for
 - the circumstances under which the data/biological samples were gathered

- how the ethics of data/biological sample collection was ensured?

The ethics of the original study was assured by the fact that the FORT3 study has ethical clearance from the ethics committee (ethics clearance number NWU-00002-07-A2 valid until 2017/08/31, thereafter continuation will be requested by submitting the annual HREC monitoring report). We are aware that data gathering in the original FORT3 project did not comply with all of the current ethics requirements. However, at the time that the FORT3 project was developed, approval was obtained from the relevant ethics committee and data was gathered in accordance with all the rules. Monitoring reports are completed and submitted on an annual basis as required by the Health Research Ethics Committee of the North-West University, which means that the FORT3 project is active and allows for analysis of the already gathered data. Data integrity is ensured by the Principal Investigator of the study and the participants' informed consent covers the research done in this affiliated study. These matters were discussed in consultations with the Head of the Ethics Office and the Chair of the Health Research Ethics Committee of the North-West University's Potchefstroom Campus and it was determined that the current study is ethically acceptable.

Participants of the FORT3 study were informed about the aim and purpose of the research, what the data will be used for and how it will be stored, both verbally by the trained fieldworkers and in writing. Participants were also informed that participation was entirely voluntary; that data would stay anonymous; that they could withdraw from the study at any point without any repercussions or negative consequence; that there is minimal foreseeable risk associated with participation; that responses will only be used as part of a group and only group scores will be used for analyses; the approximate duration of completion of the questionnaires; and how the study will contribute to science and society. An informed consent form explaining the process was provided and after being given a break, which

allowed time for the participant to review and/or discuss the details and procedures, participants handed in the written consent forms separately from the anonymously completed questionnaires. The participants could complete the questionnaires in their own time at a place convenient to them.

In the informed consent form (see Attachment 8) the following was stipulated: “We want to understand what people think about their lives and well-being, and how they experience happiness, well-being and meaningfulness. Therefore, we need your assistance and personal view.” The present affiliated study, that aims to explore the goals and motives directing individuals’ goals as they relate to different meaning profiles, fit with what the participants consented to, as it is all about understanding goals and meaning as aspects of well-being.

Give a detailed description of:

- how data/biological sample storage was managed
- where and how data/biological samples were stored
- for how long it was stored
- who was responsible for storage
- how it was ensured that no tampering occurred?

The data integrity was and will be ensured as follows: The data from the Likert-type questionnaires were captured by the North-West University’s Statistical Consultation Services who captured data twice and checked for any discrepancies, where after the electronic dataset was sent to the FORT3 principal investigator (PI) (Prof.MP Wissing) and collaborator (Dr.Lusilda Schutte). The FORT3 PI/Collaborator collected the hard copies of the questionnaires from Statistical Consultation Services. The qualitative data was coded and checked by a co-coder who were both trained in the EHHI coding system. Both coder and co-coder signed confidentiality agreement forms. Any differences were discussed and

if consensus could not be reached, the FORT3 PI was involved to make a final decision. In cases where codes did not exist for the response, this matter was taken up with the international EHHI team, who then added an appropriate code to the coding system. Once codes were finalised, the codes were captured twice and independently by trained research interns who signed confidentiality agreement forms. This process was overseen and monitored by the FORT3 PI and collaborator. The coding and code checking were conducted on the hard copy versions of the questionnaires, which were handed to coders one pile at a time.

Once the coder was done with the pile, it was handed back to the FORT3 PI/collaborator. Capturing of the codes was done on computers that are placed within a locked office on the premises of the North-West University and the data was locked in cupboards in that office for the duration of data capturing. The captured data was sent to the FORT3 PI and collaborator and the data was then removed from the computers of the data capturers. After data coding and capturing, the hard copies of the questionnaires were moved to cupboards in a locked office of the North-West University where it is stored. Access to the hard copies of the data is monitored by the FORT3 PI and collaborator. The FORT3 collaborator, who is a statistician and competent and experienced in data cleaning and management, merged the quantitative and qualitative data. The FORT3 PI and collaborator keep the electronic data on password protected computers to ensure the integrity of the data. If any of them need to make a change to the data, this is communicated to the other in writing and the updated dataset is shared with the other so that both have the same newest version on their computers. Should the need arise to share the dataset with another person to assist with the data analyses (e.g. a statistical consultant from Statistical Consultation Services), the dataset as stored on the computers of the PI and collaborator will be sent to the relevant person who is, from his professional obligation, responsible to also safeguard the data

integrity. Since all analyses for this study will be conducted by the FORT3 collaborator, the student researcher involved will only receive the output from the analyses. She will not have access to the original data.

The original completed questionnaires (hard copies) will be stored in locked offices at the Africa Unit for Trans-disciplinary Health Research (AUTHeR) of the North-West University for six years after the last publication utilising the project data, after which the data will be destroyed by shredding it. Electronic data will be stored on password protected computers of the study leader of the present study and the principal investigator of the FORT3 study for at least six years after the last publication utilising the project data. When the data is no longer relevant, it will be permanently deleted according to the regulations of the Record Plan of the North-West University.

Foreseeable risks for participants or researchers involved in using the previously collected data/biological samples?

Risks	Precautions
Participants: There was minimal risk associated with participating in the study. Although the questionnaires relate to well-being, some items could evoke emotional responses from participants.	Participants: After completion of the questionnaires, participants were given the opportunity to obtain the contact details of qualified professionals who could provide debriefing should they feel the need.
Researchers, fieldworkers and assistants: Minimal risk with regard to involvement in the study is foreseen. However, since some items	Researchers, fieldworkers and assistants: Researchers, fieldworkers and assistants:

Foreseeable risks for participants or researchers involved in using the previously collected data/biological samples?

could evoke emotional responses from participants, this could also impact on researchers, fieldworkers and assistants.

Participants:

Researchers:

Researchers, field workers and assistants could have and can still also contact the arranged counsellors or psychologists if needed.

Will re-consent be necessary?

If “Yes” motivate:

why

for what

how this re-consent will be obtained.

Yes	No	Why?	Not applicable
☐	☒	For what?	Not applicable
		How?	Not applicable

[ATTACH A LETTER FROM THE STUDY LEADER/PI GIVING PERMISSION FOR THE USE OF THE DATA/BIOLOGICAL SAMPLES]

[ATTACH THE ETHICAL APPROVAL OF THE ORIGINAL STUDY]

[ATTACH THE INFORMED CONSENT DOCUMENTATION FOR RE-CONSENT (IF APPLICABLE)]

Use of filed privileged information (if applicable)

Filed privileged information may be used for research purposes with the research ethics committee *waiving informed consent*. Give a detailed description of the process under the following headings.

The nature of the information to be used:	
Not applicable	
Process of obtaining permission/ethical approval for access:	
Not applicable	
Process of data collection:	
Not applicable	
Process of anonymization of the data:	
Not applicable	
Foreseeable risks for participants whose filed privileged information is being accessed:	
Risks	Precautions
Not applicable	Not applicable

Justifiability of statistical procedures

1.1.10 Statistical consultation

Indicate how you ensured the suitability of the statistical procedures to be used in this study e.g. consultation or proof of expertise.

The study will make use of the SPSS and MPlus statistical analysis software programs as well as Excel and the data analysis will be done by the study leader who is a qualified statistician and has experience as a statistical consultant.

1.1.11 Justification of sample size

Indicate how the sample size was determined e.g. power calculation or previously reported study designs.

The participants (N = 585) included in the study were obtained from the FORT3 project. This number is sufficient for the analyses conducted in the current study. In order to determine the sufficiency of the sample size, different quantitative analyses that will be performed as described in Section 5.19.4 of the ethics application form, need to be taken into consideration. Due to the fact that the frequency analysis is not subjected to a statistical test or statistical power, it is considered adequate. Regarding the other analyses, the study is considered exploratory in nature and all the data available will be used. When the sample sizes of specific demographic groups are small, it will be mentioned and taken into consideration at the interpretation of the results. If small sample sizes could have an influence on the interpretability of the finding, it will be identified as a limitation, and interpretations will not be made.

1.1.12 Method of randomisation (if applicable)

If randomisation is to be used in this study, please indicate the manner by which randomisation will be assured.

Not applicable

1.1.13 Statistical methodology

Describe the means by which the statistical analyses will be conducted i.e. descriptive statistics, comparisons to be made, specific statistical tests to be used and the manner in which co-variance will be corrected for.

1. Socio-demographic questionnaire. The socio-demographic questionnaire collected data on gender, age, level of education, standard of living, and marital status (Refer

to section 4.2). Data collected from the FORT3 research programme (ethical approval number NWU 00002-07-A2) will be used.

Semi-structured open-ended questions on goals and meaning. The original study made use of two semi-structured open-ended questions as formulated by Delle Fave et al., (2011) in the Eudaimonic-Hedonic Happiness Investigation questionnaire (EHHI). By means of a cross-sectional survey design the FORT3 project investigated the prevalence of levels of psychosocial health and explored dynamics and relationships with biomarkers of (ill) health in South African social contexts. Four of the eight open-ended questions that were used in the mixed methods EHHI instrument in the original FORT3 study are used in the present study. Using Microsoft Office Excel, the alignment patterns between goals (what and why) and meaningful things (what and why) within the spirituality domain will be determined per person. Four alignment patterns will be distinguished:

- = The spirituality domain was NEITHER mentioned in the participant's important goals or the reasons therefore, NOR in his/her meaningful things or motivations therefore.
- = The spirituality domain was mentioned in BOTH the participant's important goals or the reasons therefore, AND in his/her meaningful things or motivations therefore.
- = The spirituality domain WAS mentioned in his/her important goals or the reason therefore, BUT NOT in his/her meaningful things or motivations therefore.
- = The spirituality domain WAS NOT mentioned in the participant's important goals or the reasons therefore, BUT IT WAS mentioned in his/her meaningful things or motivations therefore.

Cross tabulations and accompanying chi-square tests will be used to explore the associations between the alignment patterns and the demographic variables using IBM SPSS

Remember to save your document regularly as you complete it!

Section 6: Matters that Necessitate Additional Information

Sec 6a: Vulnerable participants

Please complete this section if your study includes *minors, adults with incapacities, persons in dependent relationships e.g. prisoners, students, persons with physical disabilities, collectivities and research-naïve communities*. (Mark ALL options as “Yes” or “No” with X in the appropriate box – more than one option may be “Yes”).

Description	Yes	No
Minors	☐	☒
Adults with incapacities	☐	☒
Persons in dependent relationships e.g. prisoners	☐	☒
Students	☐	☒
Persons with physical disabilities	☐	☒
Collectivities	☐	☒
Research-naïve communities	☐	☒
Other	☐	☒
Specify: Not applicable		

1.1.14 Description

Give a detailed description of the vulnerable group by referring to:

- who they are
- where they come from

- what makes them vulnerable.

Not applicable

1.1.15 Justification for inclusion

Explain the necessity for including this specific group of vulnerable people as human participants (subjects) indicating the *direct benefit to the participants themselves* or the *indirect benefit of an improved scientific understanding*.

Not applicable

1.1.16 Additional precautionary measures to reduce the risk of harm

Explain any additional precautionary measures you will take to reduce the possibility of harm.

Not applicable

Remember to save your document regularly as you complete it!

Sec 6b: Infection, genetic modification and commercialisation of cell and tissue lines

1.1.17 What will you be doing with the cell or tissue line?

Infection of the cell or tissue line	☐
Genetic modification of the cell or tissue line	☐
Commercialisation of the cell or tissue line	☐

1.1.18 Number

How many cell and/or tissue lines will be used in the study?

Description	Number
Cell lines	0
Tissue lines	0

[OPEN UP THE APPROPRIATE AMOUNT OF SPACES IN SECTION 1.1.19

ACCORDING TO 1.1.18]

1.1.19 Product information

Provide detailed product information, so that the reviewers can evaluate the ethically justifiable use of the cell and tissue lines. Give the necessary details below.

More information

Human origin and consent:

For standard cell and/or tissue cultures from banks such as the ATCC consent already exists for general, ethically justifiable and medically related research.

Potential dangers and risks:

Tissue banks such as the ATCC classify cell and/or tissue cultures as “bio safety level 1, 2 or 3”, depending on potential for infection with pathogens which may be harmful to man, or cancerous characteristics that would make growth in a person possible after undesirable, accidental inoculation. NB! These cell cultures may never be used in people.

Cell Line or Tissue Line

Approved Name & Code	Description
Click here to enter text.	Click here to enter text.

Source / Origin / Supplier	Catalogue No.	Biosafety level?
----------------------------	---------------	------------------

Cell Line or Tissue Line			
Click here to enter text.	Click here to enter text.	Level 1	☐
		Level 2	☐
		Level 3	☐

Method of Storage and Maintenance
Click here to enter text.

Potential Dangers	Precautionary measures
Click here to enter text.	Click here to enter text.

Other Relevant Information
Click here to enter text.

To add additional tables, copy the whole table above (select, then press Ctrl + C), click here, press enter and then paste (Ctrl + V).

1.1.20 What is the infectious agent to be used (if applicable)?

Click here to enter text.

1.1.21 Has the participant given informed consent for commercialisation of their cell line?

Yes	No	If “Yes” attach a copy of the completed informed consent form
☐	☐	If “No”, justify why not:
		Click here to enter text.

- 1.1.22 Has a benefit sharing agreement been undertaken with the participant if commercialisation of their cell line is being undertaken?

If “Yes” attach the agreement. If “No” justify why this is the case.

Yes	No	If “Yes” attach a copy of the completed benefit sharing document
☐	☐	If “No”, justify why not:
		Click here to enter text.

- 1.1.23 Expertise and facilities

Do you have the necessary expertise to work with the cell and/or tissue cultures? Provide full details. Mark “Yes” or “No” with X in the appropriate box. Provide additional details as requested.

Yes	Details	
☐	Principal investigator	Researchers/Students/Fieldworkers
	Click here to enter text.	Click here to enter text.
No	How do you plan to get the expertise required?	
☐	Principal investigator	Researchers/Students/Fieldworkers
	Click here to enter text.	Click here to enter text.

- 1.1.24 Facilities

Describe the facilities that are in place to work with the cell and/or tissue line.

Click here to enter text.

- 1.1.25 Biosafety

Explain the measures you have in place to protect the safety of researchers/workers/the environment against the potential detrimental effects of the infection, genetic modification or

commercialisation of the cell and/or tissue and waste. Also specify methods and safety measures for the disposal of cell and/or tissue cultures. If available, attach the standard operating procedures (SOPs) of these processes.

Click here to enter text.

Remember to save your document regularly as you complete it!

Sec 6c: Use of Drugs/Medicines

Please complete this section if any drugs or medicines are used or administered in this study.

1.1.26 Number

How many types of drugs / medicines will be used in the study? If more than one dosage form or brand name of the same drug (active ingredient) is used, it must be counted and mentioned separately. Where applicable, placebos must also be mentioned and calculated.

Description of Drugs / medication	Dosage
Click here to enter text.	Click here to enter text.

[OPEN UP THE APPROPRIATE AMOUNT OF SPACES IN SECTION 1.1.27

ACCORDING TO 1.1.26]

1.1.27 Product information

Provide detailed product information as requested

Drug 1

Approved Pharmacological (Generic) Name	Brand Name(s) (if applicable)
Click here to enter text.	Click here to enter text.

Registered at the MCC-SA? ¹		If “Yes”, MCC-SA Registration Number ²	If registered at the MCC-SA, is this for the indications, dosages and administrations as used in this study? Provide details where necessary.
Yes	No	Click here to enter text.	Click here to enter text.
☐	☐		

Accepted Dosage(s)	Accepted Administration Route(s)
Click here to enter text.	Click here to enter text.

Pharmacological Action, Therapeutic Effects & Indications	Side-effects, Precautions & Contra-indications
Click here to enter text.	Click here to enter text.

Other Relevant Information
Click here to enter text.

Proof of preclinical approval of the product
Click here to enter text.

To add additional tables, copy the whole table above (select, then press Ctrl + C), click here, press enter and then paste (Ctrl + V).

1.1.28 Special authorisation for use in humans:

¹ MCC-SA = Medicine Control Council of South Africa.

² The MCC-SA registration number can be found on medicine product leaflets.

If any of the medication is not registered with the Medicine Control Council or, if it is registered but the study deals with indications for which it is not specifically registered, or if other doses, dosages, dosage forms or administration routes are used than what is registered, special approval must be obtained for the clinical test from the Medicine Control Council.

Has such special authorisation been obtained? Please mark with X in the appropriate box and complete further as applicable.

Yes	No	Authorisation Number	Date of Authorisation
☐	☐	Click here to enter text.	Click here to enter a date.

If “Yes” please upload a copy of the approval letter. If “No” please explain the manner in which you plan to go about obtaining approval before the study begins.

NB! Final approval of the application by the HREC is dependent on the approval of the study by the Medicine Control Council. No study may continue before written approval is obtained.

If “No” type explanation here, or type “Not Applicable”.

[PLEASE UPLOAD MCC APPROVAL LETTER]

1.1.29 Explain the measures that will be in place to protect the workers, participants and the environment against the potential side-effects of the medicinal substances and waste (disposal).

Click here to enter text.

Remember to save your document regularly as you complete it!

Sec 6d: Use of drug delivery systems

Please complete this section if any drug delivery systems are used or administered in this study.

1.1.30 Number

How many types of drug delivery systems will be used in the study? If more than one dosage form of a drug delivery system is used, it must be counted and mentioned separately.

Description of drug delivery system	Dosage
Click here to enter text.	Click here to enter text.

[OPEN UP THE APPROPRIATE AMOUNT OF SPACES IN SECTION 1.1.31

ACCORDING TO 1.1.30]

1.1.31 Drug delivery system information

Provide detailed drug delivery system information as requested? If more than one drug delivery system is used, it must be counted and mentioned separately.

Drug delivery system 1

Approved Name	
Click here to enter text.	

Registered at the MCC-SA?		If “Yes”, MCC-SA Registration Number	If registered at the MCC-SA, is this for the indications, dosages and administrations as used in this study? Provide details where necessary.
Yes	☐	Click here to enter text.	Click here to enter text.
No	☐		

Drug delivery system 1

Accepted Dosage(s)	Proof of Accepted Administration Route(s)
Click here to enter text.	Click here to enter text.

Side-effects	Contra-indications	Precautions
Click here to enter text.	Click here to enter text.	Click here to enter text.

Other Relevant Information

Click here to enter text.

To add additional tables, copy the whole table above (select, then press Ctrl + C), click here, press enter and then paste (Ctrl + V).

1.1.32 Special authorisation for use in humans

If any of the drug delivery systems are not registered with the Medicine Control Council or, if it is registered but the study deals with indications for which it is not specifically registered, or if other doses, dosages, dosage forms or administration routes are used than what is registered, special approval must be obtained for the clinical test from the Medicine Control Council. Has such special authorisation been obtained? Please mark with X in the appropriate box and complete further as applicable.

Yes	No	Authorisation Number	Date of Authorisation
☐	☐	Type no. here, or type "Not Applicable".	Click here to enter a date.

If "Yes" please upload a copy of the approval letter.

If “No” please explain the manner in which you plan to go about obtaining approval before the study begins.

NB! Final approval of the application by the HREC is dependent on the approval of the study by the Medicine Control Council. No study may continue before written approval is obtained.

If “No” type explanation here, or type “Not Applicable”.

[PLEASE UPLOAD MCC APPROVAL LETTER]

1.1.33 Explain the measures that will be in place to protect the workers, participants and the environment against the potential side-effects of the drug delivery system and waste (disposal).

Click here to enter text.

Remember to save your document regularly as you complete it!

Sec 6e: Use of Food, Fluids or Nutrients

Please complete this section if any food, fluids or nutrients (alone or in combination) are used or administered in this study. This also applies to dangers with abuse, whether or not it holds any potential danger for people, animals or the environment.

Note: This does not include the provision of a regular plate of food for maintenance during residence.

1.1.34 Number

How many kinds of food, fluids or nutrients will be used in the study?

More information

If more than one dosage form or brand name of the food, fluids or nutrient is used, it must be counted and mentioned separately. Placebos are also included, except if the placebo treatment includes no administration.

Description	Number
Food	0
Fluids	0
Nutrients / nutrient combinations	0

[OPEN UP THE APPROPRIATE AMOUNT OF SPACES IN SECTION 1.1.35

ACCORDING TO 1.1.34]

1.1.35 Product information:

Provide detailed product information, so that the reviewers can evaluate the ethically justifiable use of the food, fluids and nutrients.

Food, Fluid or Nutrient

Approved Name	Normal Quantities and Uses
Click here to enter text.	Click here to enter text.

Potential Dangers with Abuse	Contra-indications	Precautions
Click here to enter text.	Click here to enter text.	Click here to enter text.

Other Relevant Information & Literature References

Click here to enter text.

To add additional tables, copy the whole table above (select, then press Ctrl + C), click here, press enter and then paste (Ctrl + V).

- 1.1.36 Explain the measures that will be in place to protect the workers, participants and the environment against the potential detrimental effects of the food, fluids or nutrients and waste.

Click here to enter text.

Remember to save your document regularly as you complete it!

Sec 6f: Use of Radio-Active Substances

- 1.1.37 Description:

Where any radio-active substances are used in experiments or administered to participants, give full details thereof, including the isotopes and possible risks it may hold for the participants/researchers/workers/environment.

Click here to enter text.

- 1.1.38 Competence and licensing:

Do you have the necessary competence and licensing from the Department of Health at your disposal to work with radio-active substances? Mark “Yes” or “No” with X in the appropriate box. Provide the authorisation number if “Yes”.

Yes	Details	
☐	Study leader	Researchers/Students/ /Fieldworkers

Yes	Details	
	Click here to enter text.	Click here to enter text.
	Authorisation number	Click here to enter text.
No	How do you plan to get the expertise required?	
☐	Study leader	Students/Researchers/Fieldworkers
	Click here to enter text.	Click here to enter text.

Attach a copy of the approval certificate from the Radiation Control Officer.

[PLEASE UPLOAD THE APPROVAL LETTER FROM THE RADIATION CONTROL OFFICER]

1.1.39 Facilities

Describe the facilities and procedures to ensure safe use and disposal of the radio-active substances? Explain the measures you have in place to protect the safety of participants/researchers/workers/environment against the potential detrimental effects of the radio-active substances and waste. If applicable, also specify methods and safety measures for the disposal of radio-active contaminated body fluids and tissue.

Type here

Remember to save your document regularly as you complete it!

Sec 6g: Use of Toxic Substances or Dangerous Substances

Please complete this section if any toxic or dangerous substances are used or administered in this study. This also applies to dangers with abuse, whether or not it holds any potential danger for people, animals or the environment.

1.1.40 Number

How many toxic substances/dangerous substances will be used in the study?

Description	Number
Toxic substances	0
Other dangerous substances	0

1.1.41 Product information

Provide detailed product information, so that the reviewers can evaluate the ethically justifiable use of the toxic and dangerous substances.

NB! If more than one such substance is used, select and copy the whole table and paste as many tables underneath as is necessary.

Substance 1

Approved Name	Normal Uses & Dosages
Type here	Type here

Action & Toxic Effects/Dangers	Contra-indications	Precautions
Type here	Type here	Type here

Other Relevant Information

Type here

To add additional tables, copy the whole table above (select, then press Ctrl + C), click here, press enter and then paste (Ctrl + V).

- 1.1.42 Explain the measures that will be in place to protect the workers, participants and the environment against the potential detrimental effects of the toxic or dangerous substances and waste

Possible detrimental effects	Precautions
Type here	Type here

Remember to save your document regularly as you complete it!

Sec 6h: Measuring instruments and questionnaires that need psychometric interpretation

Please complete this section if any measuring instruments or validated questionnaires are used in this study that needs psychometric interpretation.

NB! Do not complete this section for any other types of questionnaires.

- 1.1.43 Name

Which psychometric measuring instruments and validated questionnaires will be used in the study?

Description

The original study made use of two semi-structured open-ended questions as formulated by Delle Fave et al., (2011) in the Eudaimonic-Hedonic Happiness Investigation questionnaire (EHHI). By means of a cross-sectional survey design the FORT3 project investigated the prevalence of levels of psychosocial health and explored dynamics and relationships with biomarkers of (ill) health in South African social contexts. A socio-demographic questionnaire collected data on gender, age, education level, standard of living and marital status were gathered.

1.1.44 Information about the measuring instrument/questionnaire

Provide detailed information on the psychometric measuring instrument/questionnaire, so that the reviewers can evaluate the ethically justifiable use thereof.

NB! If more than one psychometric measuring instrument/questionnaire is used, select and copy the whole table and paste as many tables underneath as is necessary.

Psychometric measuring instrument/questionnaire

Approved Name	Normal Application
Socio-demographic	A self-report measure assessing the presence of and search for meaning in life respectively.

Reliability	Validity
$\alpha=0.85$ for MLQ – Presence subscale and $\alpha=0.84$ for MLQ – Search subscale in a South African sample (Temane, Khumalo, & Wissing, 2014)	Construct, convergent and discriminant validity of the MLQ was indicated in mainly Western student samples (Steger et al., 2006)

Other Relevant Information

Psychometric measuring instrument/questionnaire

Approved Name	Normal Application
---------------	--------------------

Psychometric measuring instrument/questionnaire	
Eudaimonic-Hedonic Happiness Investigation questionnaire (EHHI).	A self-report measure exploring various facets of well-being.
Reliability	Validity
Qualitative measure therefore not applicable.	Qualitative measure therefore not applicable.
Other Relevant Information	
Click here to enter text.	

1.1.45 Validation for target group:

Is the measuring instrument validated for the target group (e.g. for South African circumstances)? Provide full details. Please mark with X in the appropriate box and provide details.

Yes	No	Details
☒	☐	EHHI - The original study made use of two semi-structured open-ended questions as formulated by Delle Fave et al., (2011) in the Eudaimonic-Hedonic Happiness Investigation questionnaire (EHHI). By means of a cross-sectional survey design the FORT3 project investigated the prevalence of levels of psychosocial health and explored dynamics and relationships with biomarkers of (ill) health in South African social contexts. Four of the eight open-ended questions that were used in the mixed methods EHHI instrument in the original FORT3 study are used in the present study

Remember to save your document regularly as you complete it!

Sec 6i: Possible impact on the environment

Please complete this section if the study to be undertaken will have any impact on the environment as determined by evaluation of the study using the risk level descriptor for environmental impact. If this section is to be completed, please ensure that a completed copy of the risk level descriptor for environmental impact is attached to the application that is submitted.

1.1.46 Please indicate the risk level of the current study in terms of environmental impact.

Category	Description	Select
0	None Effect on the environment: Potential for incidental and/or transient changes to valued flora and fauna, ecosystem processes and structure, including ecosystem services; or Legal implications: No legal implications. No need to apply for any environmental authorisations; or Potential impact on reputation of the NWU: No discernible impact on reputation.	☒
1	Mild Effect on the environment: Potential for acceptable, short term changes to valued flora and fauna, ecosystem processes and structure, including ecosystem services; or Legal implications: Complaints for the public and/or regulator. No need to apply for any environmental authorisations; or	☐

Category	Description	Select
	Potential impact on reputation of the NWU: Potential impact on reputation.	
2	Medium Effect on the environment: Potential for acceptable, longer term changes to valued flora and fauna, ecosystem processes and structure, including ecosystem services; or Legal implications: Departmental enquiry and correspondence. Environmental authorisation may be required; or Potential impact on reputation of the NWU: Limited, reputation impacted with small number of people.	☐
3	Severe Effect on the environment: Potential for <u>un</u>acceptable, short term changes to valued flora and fauna, ecosystem processes and structure, including ecosystem services; or Legal implications: Notification of intent to issue a directive. Environmental authorisation required; or Potential impact on reputation of the NWU: Reputation impacted with some stakeholders.	☐
4	Very severe Effect on the environment: Potential for <u>un</u>acceptable, longer term changes to valued flora and fauna, ecosystem processes and structure, including ecosystem services; or	☐

Category	Description	Select
	Legal implications: Withdrawal of permit. Environmental authorisation required; or Potential impact on reputation of the NWU: Reputation impacted with significant number of key stakeholders.	
5	Intolerable Effect on the environment: Potential for <u>irreversible</u> changes to valued flora and fauna, ecosystem processes and structure, including ecosystem services; or Legal implications: Referral to the National Prosecuting Authority. Potential investigation by authority with prosecution and fines. Environmental authorisation required; or Potential impact on reputation of the NWU: Reputation impacted with majority of key stakeholders.	☐

1.1.47 Explain the type of environmental impact that the study will have.

Type here

1.1.48 Name and explain *all the possible risks* for the environment that may occur during the research. Use the template included in the approved risk level descriptor document for studies with environmental impact to guide you into identifying all the possible types of risk as well as the probability and magnitude of harm. Please also include *all the precautions* that will be taken in order to mitigate the risks to the environment.

Risks (e.g. effect on environment, legal implications, potential impact on the reputation of the NWU, etc.).	Precautions (When describing these precautions be clear on how they will mitigate all the identified risks)
Not applicabl	Not applicable

Remember to save your document regularly as you complete it!

Section 7: Other Ethics Evaluations AND Risk Insurance

Sec 7a: Evaluation by other Research Ethics Committees

Please complete this section if this study has been or will be evaluated by any other research ethics committees, for example with multi-institutional studies. Provide information about all research ethics committees involved in the review and approval of this study.

Name of the Research Ethics Committee	Date of Approval/In Process	Contact Number or E-mail address of the research ethics committee	Approval no.
Not applicable	Not applicable	Not applicable	Not applicable

Remember to save your document regularly as you complete it!

Sec 7b: Risk Insurance

The North-West University has insurance at its disposal to cover the risk of claims against the University in case of damage to participants due to professional negligence – the maximum

cover is currently R100 million per annum (all studies included). However, this is only available if studies are ethically approved and researchers have kept to the proposal.

1.1.49 Describe the potential risks to which the participants/researchers/assistants/field workers are going to be subject to in so far as complications may lead to summonses.

Type	Risks
Participants	Although the questionnaires relate to well-being, some items could evoke emotional responses from participants. After completion of the questionnaires, participants were given the opportunity to obtain the contact details of qualified professionals who could provide debriefing should they feel the need. .
Researchers	Minimal risk with regard to involvement in the study is foreseen. However, since some items could evoke emotional responses from participants, this could also impact on researchers. Researchers could have and can still also contact the arranged counsellors or psychologists if needed.
Assistants and/or field workers	Minimal risk with regard to involvement in the study is foreseen. However, since some items could evoke emotional responses from participants, this could also impact field workers. Assistant researchers and field workers also had the opportunity to contact the arranged counsellors or psychologists if they felt the need.
Others	Not applicable

1.1.50 These potential risks are covered by:

North-West University	☒
Sponsor/s	☐
Other: Specify: Click here to enter text.	☐

1.1.51 Is this insurance adequate (measured against the potential risks)?

Please mark with X in the appropriate box.

Yes	No	If “No”, indicate what will be done to ensure that there is sufficient coverage?
☒	☐	Click here to enter text.

Remember to save your document regularly as you complete it!

Section 8: Declarations

Applications and declaration are filled in and signed by:

Sec 8a: Study Leader

Sec 8b: Statistical Consultant

Sec 8c: Research Director

The pages with declarations and signatures must be **scanned** with this form.

[SCAN ALL SIGNED DECLARATIONS]

Health Research Ethics Application

Study Leader (Title, Initials and Surname)	Study Title
Ms C. Liversage	Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables

NWU Ethics Number

NWU- **NWU 00004-19-S1**

Sec 8a: Study Leader

Application and Declarations by Study Leader

I, the undersigned, hereby apply for approval of the research study as described in the preceding proposal and declare that:

- 1.1.52 The information in this application is, to the best of my knowledge, correct and that no ethical codes will be violated with the study;
- 1.1.53 I will make sure that the study is managed ethically justifiably from start to finish;
- 1.1.54 In the case of human participants;
 - I will put it clearly to all participants that participation (including assent) in any research study is absolutely voluntary and that no pressure, of whatever nature, will be placed on any potential participant to take part;
 - I will put it clearly to all participants that any participant may withdraw from the study at any time and may ask that his/her data no longer be used in the study, without stating reasons and without fear of any form of prejudice;

- every participant who takes part in the study will receive the accompanying form for informed consent and it will be ensured that every participant understands the information (including the process and risks) fully;
 - every participant will sign the informed consent in writing before the study commences, or a witness will stand in on behalf of the participant when the participant is illiterate;
 - the written permission of the parent or legal guardians of all minor subjects will be obtained before the research commences;
 - any foreseeable risk is restricted to the minimum, any permanent damage is avoided as far as possible and that appropriate precautions and safety measures are in place;
 - confidentiality of all the information of all participants will be respected and ensured;
- 1.1.55 I and all co-workers/assistants/field workers are appropriately qualified, capable and legally competent to implement the proposed studies/procedures/interventions;
- 1.1.56 I will not deviate from the approved proposal and that I understand approval for the study will be cancelled if I deviate from the proposal without the approval of the Health Research Ethics Committee;
- 1.1.57 the study is scientifically justifiable;
- 1.1.58 where necessary, all contracts, permits and the applicable documents of relevance will be obtained before the research commences;
- 1.1.59 I will ensure that all data/biological samples are stored safely and remain in the possession of the North-West University;
- 1.1.60 I will report in writing any incidents or adverse events/serious adverse events that occur during the study without delay to the Health Research Ethics Committee;

- 1.1.61 I undertake to respect intellectual property rights throughout and to avoid any form of plagiarism;
- 1.1.62 I will obtain permission for amendments to the protocol and report annually (or more often for medium and high risk studies) to the Health Research Ethics Committee on the prescribed monitoring report concerning progress of the study;
- 1.1.63 I will notify the Health Research Ethics Committee should the study be terminated.

Name (Title, Full Names & Surname)	Qualifications
Ms C. Liversage	Master of Arts in Positive Psychology (MAPP)

	
	2018/01/21
Signature	Date

Remember to save your document regularly as you complete it!

Health Research Ethics Application

Study Leader (Title, Initials and Surname)	Study Title (see § 0)
Ms. C. Liversage	Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables.

NWU Ethics Number

NWU-????-??-??

Sec 8b: Statistical Consultant (If applicable)

The statistician of the Statistical Consultation Service of the North-West University completes this section (where applicable).

1.1.64 Have you ascertained that the statistical analyses to be used in this study is justifiable according to your judgement?

Please mark with X in the appropriate box and provide details.

Yes	No	Remarks
☒	☐	The co-study leader of the present study has a masters degree in statistics and worked at Statistical Consultation Services for a few years. According to her discretion, the statistical analyses to be used in this study are justifiable.

Name (Title, Full Names & Surname)	Qualifications
Dr. Lusilda Schutte	PhD in Psychology M. Sc. Statistics

	
	2019/01/21
Signature	Date

Remember to save your document regularly as you complete it!

Health Research Ethics Application

Study Leader (Title, Initials and Surname)	Study Title
Ms. C. Liversage	Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables

NWU Ethics Number
NWU- NWU 00004-19-S1

Sec 8c: Research Director (School director if Education request)

I, the undersigned, hereby declare that the above study has been reviewed by a Scientific/Proposal Committee and may proceed to the Health Research Ethics Committee and that the Study Leader/Researcher has enough physical facilities, equipment and money at his/her disposal to implement and complete the study.

1.1.65 Research Director:

The director of the research entity signs here.

Name (Title, Full Names & Surname)	Capacity
Prof. Petra Bester	Research Director AUTHeR

Name (Title, Full Names & Surname)	Capacity
	
	2019/01/22
Signature	Date

Remember to save your document regularly as you complete it!

Credits

Compiled by the Faculty of Health Sciences Ethics Office for Research, Training and Support

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Approval letter of HREC application (NWU 00075-18-S1)

Private Bag X1290,

Potchefstroom

South-Africa 2520

Tel: 018 299-1111/2222

Fax: 018 299-4910

Web: <http://www.nwu.ac.za>**Research Ethics Regulatory****Committee** Tel: 018 299-4849

Email:

nkosinathi.machine@nwu.ac.za

5 March 2019

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North West University Health Research Ethics Committee (NWU-HREC) on 25/03/2019, the NWU Health Research Ethics Committee hereby approves your study as indicated below. This implies that the North-West University Research Ethics Regulatory Committee (NWU-RERC) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables.

Study Leader/Supervisor (Principal Investigator)/Researcher:

Ms C Liversage

Student: A du Preez

Ethics number:	N	W	U	-	0	0	0	0	4	-	1	9	-	A	1
	Institution			Study Number						Year		Status			

Application Type: Single Study

Commencement date: 25/03/2019

Risk: Expiry date: 31/03/2020

Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

- *it becomes apparent that any relevant information was withheld from the NWU-HREC or that information has been false or misrepresented;*
- *submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or*
- *new institutional rules, national legislation or international conventions deem it necessary.*
- *NWU-HREC can be contacted for further information or any report templates via [Ethics- HRECAppl@nwu.ac.za](mailto:Ethics-HRECAppl@nwu.ac.za) or 018 299 1206.*

The NWU-HREC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the NWU-HREC or the NWU-RERC for any further enquiries or requests for assistance.

Yours sincerely



Digitally signed
by Wayne
Towers

Date: 2019.04.12

08:45:08 +02'00'

Prof Wayne Towers
Chairperson NWU Health Research Ethics Committee

Original details: (22351930) C:\Users\22351930\Desktop\ETHICS APPROVAL LETTER OF
STUDY.docm 8 November 2018

Current details: (22351930) M:\DSS1\8533\Monitoring and Reporting Cluster\Ethics\Certificates\Templates\Research Ethics Approval Letters\9.1.5.4.1 HREC Ethical Approval
Letter.docm 3 December 2018
File reference: 9.1.5.4.2

Summary

Chapter 1 is an indication of where the journey of this research started. Specifically, the approved research proposal and ethics application were presented. This research report: **Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables** will be presented as a manuscript in article format in the next section.

Chapter 2

Manuscript for Evaluation

Manuscript in Article Format

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Concordance of goals and meaning in the spirituality domain: Associations with socio-demographic variables

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Abstract

Goals and meaning are key constructs that are associated with well-being. These constructs have been studied individually, but despite the importance of both in the spirituality domain, limited studies are available pertaining to their alignment in various life domains – particularly the spiritual domain – or how such alignment patterns may be associated with socio-demographic variables. There is, however, ample evidence on the importance of spirituality in the lives of most South Africans. In view of the above, this study explored the patterns of concordance of goals and meaning in the spirituality domain and how these patterns were associated with socio-demographic variables for participants in the South African context. The study sample comprised 585 South Africans aged 18 years and above, with a minimum Grade 12 level of education. A mixed methods convergent parallel design was used. Qualitative data were transformed into quantitative data where cross-tabulations and accompanying chi-square tests accentuated some significant associations between patterns of alignment and socio-demographic variables. Findings showed that very few people mentioned aspects related to spirituality as one of their three most important goals in life or the reasons therefore, but more mentioned spirituality as one of the three most meaningful things in their lives or the motives therefore.

Keywords: concordance, goals, meaning, socio-demographic variables, spirituality, well-being

Positive psychology, a field growing in popularity and research interest, is a science which focuses on positive human functioning and explores the conditions of flourishing in both individuals and communities (Seligman, 2007). Some key constructs pertaining to flourishing and well-being include goals and meaning (Emmons, 2005). These constructs have been researched separately, but also as overlapping with the constructs purpose (Klinger, 2012) and religion (Sharma & Singh, 2018). The link between goals and meaning as manifested in various life domains, particularly the spirituality domain, is not yet known. Research on the alignment or concordance of goals and meaning in the spirituality domain of life is scarce despite the prominence of spirituality in the (South) African context (Burnell, Beukes, & Esterhuyse, 2009; Selvam & Collicutt, 2013). There is a lack of research on the possible associations of patterns of alignment in the spiritual domain with socio-demographic variables in a South African context.

This study (affiliated to the FORT3 research project, with ethics approval number: NWU NWU-00004-19-A1) intended to address the aforementioned absence in scientific knowledge. In the FORT3 research project, the focus is on the prevalence of levels of psychosocial health while considering the dynamics and the relationships thereof with biomarkers of (ill) health. The FORT3 project, following a mixed methods research approach, explores, among other objectives: i) the prevalence of levels of psychosocial well-being in diverse groups in the South African context, and ii) the links between meaning, goals, and other facets of psychosocial well-being as associated with socio-demographic variables. In view of these objectives of FORT3, the current affiliated study used data from the FORT3 project to explore the patterns of concordance of goals and meaning in the spirituality domain of life and how different patterns of concordance were associated with socio-demographic variables. For the purposes of this affiliated study, the words concordance and alignment are used as synonyms.

This study concentrated on data collected in a South African group of participants as part of the FORT3 project, which also overlaps with the international Eudaimonic-Hedonic Happiness (EHHI) project. In previous research within the EHHI, which included South African data from the FORT project (Delle Fave, Brdar, Freire, Vella-Brodrick & Wissing, 2011; Delle Fave, Brdar, Wissing, & Vella-Brodrick, 2013), it was found that, apart from South Africa, participants across various countries seldom referred to the spiritual domain of life when listing their most important goals and meaningful things. In contrast, spirituality was more prevalent in the South African sample. In view of the unique position of South Africa in this international study with regard to the importance of spirituality as a domain of life, this study explores the alignment of goals and meaning as overarching eudaimonic well-being concepts and their associations with socio-demographic variables in the spirituality domain of life in a South African group.

According to the South African General Household Survey (Statistics South Africa, 2013), a total of 84% of South Africans consider themselves to be spiritual/religious, which further supports the relevance of this study (Schoeman, 2017). Research, although sometimes conflicting, generally shows a close association between religion and spirituality and highlights the importance of religion in identity formation, experiencing meaning in life, and having high levels of well-being (Albert & Bennet, 2017; Nell, 2014; Wissing, Khumalo, & Chigeza, 2014). The manifestation of spirituality in goals and meaning in a South African context, and how this may be expressed in different socio-demographic groups, remain unexplored.

Goals

Over time, the explanation of goals has varied in definition. Gebhardt (2006) explained goals as outcomes which people strongly wish for, aim to keep up, acquire or avoid, whereas Klinger (2012) suggested that goal setting is to have a “purpose for action”

(p. 28). Furthermore, Diener (2012) described goals as reaching an aim which had value or movement towards an ideal state, supporting Wilson, Wissing, Ndimba, and Somhlaba (2018), who suggest that goals are key components to meaning as they represent an individual's values.

Furthermore, goals play an important role towards the cultivation of well-being (Monzani et al., 2015). According to Delle Fave et al (2013), eudaimonic well-being is intertwined with the attainment of goals and meaning. Therefore, it is important to understand the functioning of goals and meaning in various life domains. Goals, as well as the motivation to achieve your goals, are said to be either intrinsic or extrinsic (Ciani, Sheldon, Hilpert, & Easter, 2011). Intrinsic goals are related to the inner individual, i.e., psychological needs, whereas extrinsic goals refer to external goals such as financial success. The extent to which one is intrinsically motivated to pursue personal goals such as personal growth is described by Gaudreau (2012) as *self-concordance*.

In addition to distinguishing between intrinsic and extrinsic goals, other differentiations are also made, for example: *performance goals*, which are concerned with making a good impression in demonstrations of talents and abilities; *approach goals*, which indicate movement in a positive direction and positive outcomes; *instrumental goals*, which are focused on effectiveness; and *constitutive goals*, which concentrate on the inner person and connect the activity to meaning (Darnon, Butera, & Harackiewicz, 2007; Darnon, Harackiewicz, Butera, Mugny, & Quiamzade, 2007; Pekrun, Elliot, & Maier, 2009).

It is essential to understand personal goals and how they may be an indicator of well-being (Keyes, 2006). Jankowski (2016) states that goals are part of core concepts in positive psychology, such as self-determination, purpose, and meaning. Meaning and purpose come from experiencing actions which turn towards desired goals (Park, 2010).

Meaning

Meaning is theorized in research as a component of well-being, specifically eudaimonic well-being (Ryff & Keyes, 1995; Ryan & Deci, 2001). Meaning is seen as a path to living a fulfilled life and a core construct and critical ingredient of well-being (Peterson & Park, 2012; Steger, 2018; Steger, Oishi, & Kashdan, 2009). According to King and Hicks (2009), there are two processes involved in finding meaning: firstly, one can find meaning by constructing meaningful things in one's life, and secondly, meaning can be found through meaning detection which refers to the experience that one's life makes sense when giving to others or doing acts of service for others. Fry and Debats (2010) posit meaning as a cognitive map that assists in steering the course of individuals' lives. Research further reports that individuals with a sense of meaning in their lives have positive emotions, greater life satisfaction, better self-esteem, and higher levels of optimism (Steger et al., 2009). According to Steger (2012), meaning provides a sense that makes lives matter and directs energies to achieve goals. Moreover, the creation of meaning can be connected to personal development and is likely to initiate other processes such as the development of identity, relationships, and goals (Steger et al., 2009). The PURE model of meaning (Wong, 2011) identifies four components of meaning in life: purpose, understanding, responsible action, and enjoyment. Wong (2011) suggests that the PURE model may act as a tool when evaluating whether individuals experience their life as meaningful.

Schnell (2011) also identified motivational (purpose, needs, and life goals), cognitive (making sense of life and understanding life), social and moral (commitment, accountability, and responsibility), and affective (positive emotions, enjoyment, and evaluation) psychological processes as equally important for experiencing a meaningful living. The concordance of goals and meaning is important for well-being. (Sheldon & Elliot, 1999).

Concordance of Goals and Meaning

The self-concordance model of Sheldon and Elliot (1999) suggests that goals and meaning are linked as important constructs for well-being and that more self-concordant motivation leads to greater effort to achieve a goal and this turns into greater well-being. The driving concern in this study has been how goals and meaning are associated in the spirituality domain and how this knowledge can be used in a way that optimizes human well-being.

Lambert, Passmore, and Holder (2015) suggest that the meaning of goals and the pursuit of goals play a defining role in personal development. According to Fava (1999), the development of goals allows a greater sense of purpose in life and is an important part of well-being. Furthermore, higher levels of intrinsic motivation have been reported to positively predict the experience of meaning (Csikszentmihalyi, 1990; Herscovitch & Meyer, 2001; Lockwood, 2007).

In contrast, the absence of a sense of meaning in life may inhibit an individual's pursuit to attain their goals and possibly amplify feelings of purposelessness (Ventegodt & Merrick, 2012). Sheldon and Kasser (1995) found that self-concordant people appeared happier because they experienced satisfaction through their goal pursuits. Socio-demographic factors also contribute to the experience of well-being and may account for variances in psychological well-being and mental health, including goals, meaning, and the concordance thereof (Khumalo et al., 2012).

Socio-Demographic Factors and Well-Being

Socio-demographic variables such as gender, standard of living, education levels, and marital status also play an important role in the experience of well-being (Diener, Oishi, & Lucas, 2003). Substantiating research by Khumalo et al. (2012) found that socio-demographic variables played an important role in psychological well-being in South African Setswana-speaking communities. Higher psychological well-being was aligned with employment,

higher levels of education, being married, and living in urban areas. Living in a rural environment as well as being unemployed were noticeably detrimental to participants' well-being. The present study explored the association of socio-demographic factors such as age, gender, standard of living, marital status, and education level with the concordance of goals and meaning in the spirituality domain of life as found in a South African sample.

The Spirituality Domain of Life

Spirituality, often subjectively defined, may be the expression of one's values, morals, purpose, hope, and meaning in life (Rudolfsson, Berggren, & Da Silva, 2014). It can form part of one's global meaning experience by providing a general structure of beliefs, goals, and a greater sense of meaning (Uwland-Sikkema, Visser, Westerhof, & Garssen, 2018). Irrespective of the differentiating definitions, goals and meaning frequently appear in the conceptualization of spirituality.

Kashdan and Nezlek (2012) found that spirituality was also positively related to self-esteem and positive affect. In the South African context, spirituality has been found to be prominent in the experience of well-being (Nell, 2014; Wissing, Khumalo, & Chigeza, 2014).

Although religion and spirituality are sometimes used interchangeably, differences are noted in definitions. Spirituality refers to personal experiences which differs from religion's dogmatic beliefs (Pargament, 2009).

Fry and Debats (2010) propose that purpose and meaning in life are related to religion and spirituality and that a relationship with 'something' sacred is a defining feature of mental health. Spirituality also provides guidelines for healthy living and enhances social support in addition to providing meaning and purpose (Koenig, 2010). Furthermore, Ivtzan, Chan, Gardner, and Prashar (2013) report religion and spirituality to have a positive relation to psychological well-being, indicated by higher levels of self-actualization, meaning in life, and personal growth. Nell (2014) suggests that defensive religiousness (recognition, realization,

and consciousness) can improve meaning by providing answers to uncertainty or ambiguity that arise in life.

Garsen, Visser, and De Jager Meezenbroek (2016) examined spirituality as a predictor of subjective well-being. It was found that well-being involved connectedness with oneself, others, nature, and with the transcendent (spiritual connectors). Abeyta and Routledge (2018) put forward that spirituality is positively associated with meaning. Therefore, spirituality appears to be an important source of well-being and subsequently, meaning in life.

The Present Study

This study addressed a gap in knowledge regarding the concordance of goals and meaning in the spirituality domain of life and how the different concordance patterns were associated with demographic variables. The words concordance and alignment are used interchangeably in this study. The patterns of alignment of goals and meaning, as differentiated by Wissing et al. (2017), are as follows: i) the participant did not mention spirituality as a goal or meaningful thing; ii) spirituality was mentioned both as a goal and a meaningful thing; iii) spirituality was mentioned as a goal but not as something meaningful; iv) the participant mentioned spirituality as something meaningful but not as a goal. The findings of this study may contribute to the further understanding of eudaimonic well-being in terms of goals and meaning in the spirituality domain of life as well as how they interrelate with socio-demographic factors. Thus, the aims of this study were to determine if concordance/alignment between goals and meaning in the spirituality domain of life was present and if so, how different patterns of concordance were associated with socio-demographic variables.

Method

Research Design

By means of a cross-sectional survey design, the FORT3 project (Wissing, 2008/2012) explored the dynamics and relationships with biomarkers of (ill) health in South African social contexts. The current study examined previously gathered data from the FORT3 project using a mixed method convergent parallel research design.

The project simultaneously collected both qualitative and quantitative data, and both types of data were valued as approximately equal sources of information in this study. The qualitative responses to the open-ended questions relating to goals and meaning were converted to quantitative data using the international coding system developed by Delle Fave et al. (2011). In the development of the coding system, the responses of the participants were sorted into groups and then categorized, after which they were thematically grouped into life domains. This was an interactive process moving between codes, categories, and life domains. In this study, only responses in the spirituality domain of life were considered. The quantified qualitative data on meaning and goals in the spirituality domain, together with the quantitative data on socio-demographic variables, were analyzed and interpreted for the current study.

Participants

Participants of this research study ($N = 585$) consisted of South African adults with a minimum Grade 12 level of education who were fluent in English. Ages ranged between 18 and 60 years: 18-25 years ($n = 49$); 26-40 years ($n = 200$); 41-60 years ($n = 286$); and over 60 years ($n = 14$). They reported different levels of education; secondary ($n = 208$), tertiary ($n = 166$), and postgraduate ($n = 172$). Thirty-nine participants neglected to indicate their education level. The standard of living was demarcated as below average ($n = 27$), average ($n = 361$), and above average ($n = 142$), whereby 55 participants neglected to respond. The

marital status of participants (of which nine did not respond) was as follows: single ($n = 142$), married ($n = 340$), cohabitating ($n = 19$), separated ($n = 29$), and widowed ($n = 11$).

Participants indicated that they did not work ($n = 57$), worked ($n = 241$), were retired ($n = 2$), or that they looked after the family and did housekeeping ($n = 6$). No data about work status were available for 278 of the participants.

Measures

Quantitative measure.

Socio-demographic questionnaire. The socio-demographic questionnaire collected data about the gender, age, level of education, standard of living, work, and marital status of participants.

Qualitative measure.

The qualitative data gathering tool used in this study will now be described.

Semi-structured open-ended questions on goals and meaning. The study made use of four semi-structured open-ended questions as formulated by Delle Fave et al. (2011) in the Eudaimonic-Hedonic Happiness Investigation (EHHI) questionnaire:

- ‘Please list the three most important future goals for you’;
- ‘For each of them, please specify why it is important;
- ‘Please list the three things that you consider most meaningful in your present life’;
- ‘For each of them, please specify why it is meaningful (try to be as specific as possible)’.

Procedure

Data for the FORT3 research project were collected by postgraduate students who worked as fieldworkers under the supervision of the researchers. These fieldworkers were trained in the administration of psychosocial well-being measures. After written informed

consent was obtained from the participants, they completed the research battery at a convenient time and place of their choice and returned the questionnaires to the fieldworkers who, in turn, returned the questionnaires to the researchers.

The consent forms and the questionnaires were submitted separately, ensuring that it was not possible to connect a specific participant to a specific questionnaire. The qualitative responses of participants on the questions to goals and meaning were transformed to quantitative data using a coding system developed by Delle Fave et al. (2011) and were thereafter captured by the North-West University's Statistical Consultation Services.

Ethical Considerations

The FORT3 project was approved by the Health Research Ethics Committee of the North-West University, with project number NWU 00002-07-A2, and the present study was approved by the Health Research Ethics Committee, with project number NWU-00004-19-S1. The participants were given the opportunity to reflect on the important goals and meaningful things in their lives through the given test battery. Data management and storage were overseen by the FORT3 principal investigator (PI; third author) and the FORT3 collaborator (fourth author) who kept the electronic data on password-protected computers to ensure data integrity. This was a minimal risk study.

Data Analysis

Qualitative data analysis. The qualitative responses to the open-ended questions on goals and meaning were converted to quantitative data using the coding system developed by Delle Fave et al. (2011) in the international EHHI study. Two coders, who were trained in the prescribed EHHI project coding system by the PI and collaborator, coded the South-African data. In the event of discrepancies, a discussion was held to reach a consensus. In the event that no consensus could be reached, the FORT3 PI in consultation with the EHHI project

leader (Prof. Antonella Delle Fave) decided on the final code. Coded responses that fell in the spirituality domain are the focus of this study.

Quantitative data analysis. The following quantitative analyses were conducted through combining the coded (quantified) qualitative data with the quantitative data from the socio-demographic questionnaire:

1) The frequency of the spirituality domain being mentioned as an important goal, the reason for an important goal, as something meaningful, and as a reason for something being meaningful, was determined using IBM SPSS Statistics.

2) Using Microsoft Office Excel, the alignment patterns between goals (what and why) and meaningful things (what and why) within the spirituality domain were determined per person. Four alignment patterns were distinguished in this study;

- 1) The spirituality domain was neither mentioned in the participant's important goals or the reasons therefore, nor in the meaningful things or motivations therefore.
- 2) The spirituality domain was mentioned in both the participant's important goals or the reasons therefore, and in his/her meaningful things or motivations therefore.
- 3) The spirituality domain was mentioned in his/her important goals or the reason therefore, but not in his/her meaningful things or motivations therefore.
- 4) The spirituality domain was not mentioned in the participant's important goals or the reasons therefore, but was mentioned in his/her meaningful things or motivations therefore.

Cross-tabulations and accompanying chi-square tests were used to explore the associations between the alignment patterns and the demographic variables using IBM SPSS. The assumptions that underlie chi-square tests are that observations should be independent and that the expected frequencies of all cells should be larger than 5 (Field, 2017). An association was deemed statistically significant if the *p*-value of the chi-square test was less

than .05. Practical significance of the associations was evaluated by considering the Cramer's V effect size. According to the guidelines of David and Sutton (2011), Cramer's V can be interpreted as follows: values of 0 to 0.19 indicate a very low association; 0.20 to 0.39 indicate a low association; 0.40 to 0.69 indicate a modest association; 0.70 to 0.89 indicate a high association; and 0.90 to 1 indicate a very high association.

Results

The results are presented in the following order: frequencies of goals and meaning in the spirituality domain, followed by the associations between the alignment patterns and the socio-demographic variables.

Frequencies of Goals and Meaning in the Spirituality Domain

Table 1 indicates the frequencies of spirituality being mentioned as a goal or source of meaning, or as a reason for the goal or source of meaning.

Table 1

Frequency Distribution of Goals and Meaning in the Spirituality Domain (N=585)

Frequency	Goal (What)	Reason for Goal (Why)	Meaningful Thing (What)	Reason for Meaningful Thing (Why)
0	83.1 %	84.6 %	62.2 %	73.0 %
1	15.9 %	9.7 %	36.8 %	17.3 %
2	0.3 %	2.7 %	0.9 %	5.0 %
3	0.2 %	0.3 %	-	-
Missing	0.5 %	2.6 %	0.2 %	4.8 %
Total	100%	100%	100%	100%
Sum 1, 2, 3	16.4	12.7	37.7	22.3

Note. Frequency: 0 = no mention of spirituality as a goal or meaning, 1 = mentioned spirituality once as a goal or meaning, 2 = indicated spirituality twice as a goal or a meaning, 3 = indicated spirituality three times as a goal or meaning.

Association between Alignment Patterns and Socio-demographic Variables

The association between alignment patterns and socio-demographic variables will now be presented in table and graph format for each socio-demographic variable. In terms of the assumptions underlying chi-square tests, observations were independent in the current study. However, for many of the socio-demographic variables, a number of cells had small sample sizes, which limits the statistical power of the test. This is a limitation and indicates that the findings should be interpreted with caution.

Gender

The results for the association between alignment patterns and gender are displayed in Table 2 and Figure 1.

Table 2

Association between Alignment Patterns and Gender Groups

	Female % (n = 336)	Male % (n = 213)	p -value	Cramer's-V
Not goal or meaning	50.6	60.1	0.168	0.096
Both goal and meaning	16.4	14.6		
Goal but not meaning	4.5	3.8		
Meaning but not goal	28.6	21.6		

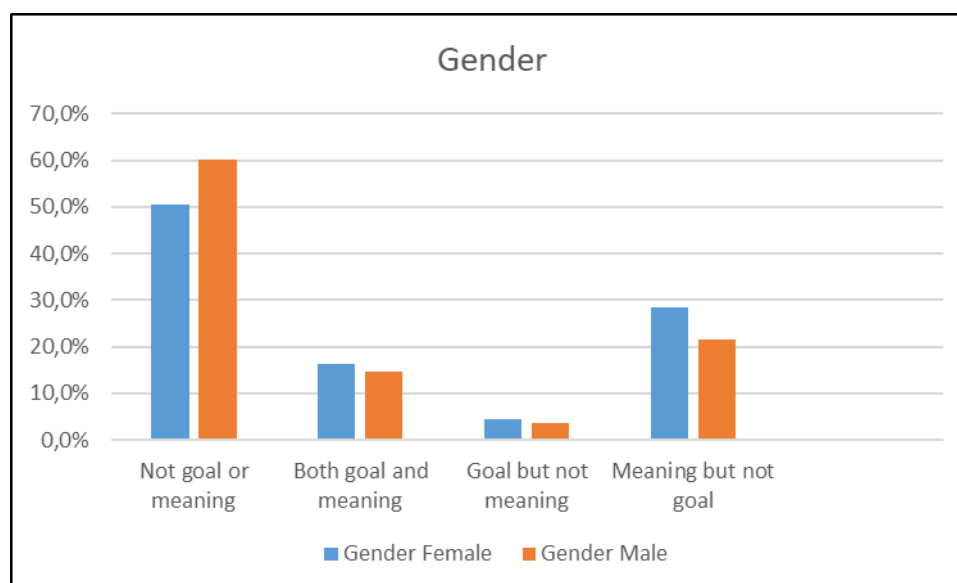


Figure 1. Association between alignment patterns and gender.

No statistically or practically significant association was found between gender and the alignment of goals and meaning in the spirituality domain. Although it was not significant, women seemed to be somewhat more likely to report spirituality as a goal, a meaning, or both.

Age

The results for the association between alignment patterns and age groups are displayed in Table 3 and Figure 2.

Table 3

Association between Alignment Patterns and Age Groups

	18-25 % (n = 49)	26-40 % (n = 200)	41-60 % (n = 286)	>60 % (n = 14)	p-value	Cramer's V
Not goal or meaning	61.2	57.5	50.7	57.1	0.361	0.077
Both goal and meaning	8.2	11.5	19.9	14.3		
Goal but not meaning	4.1	3.5	4.5	7.1		
Meaning but not goal	26.5	27.5	24.8	21.4		

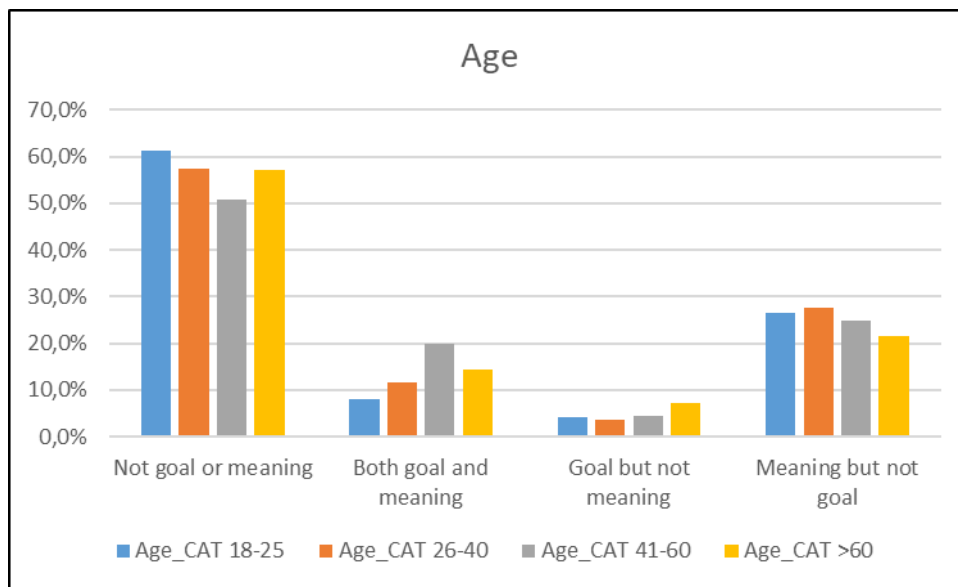


Figure 2. Association between alignment patterns and age groups.

No statistically or practically significant association was found between age and the alignment of goals and meaning in the spirituality domain.

Standard of Living

The results for the association between alignment patterns and standard of living are displayed in Table 4 and Figure 3.

Table 4

Association between Alignment Patterns and Standard Of Living Groups

	Below average % (n = 27)	Average % (n = 361)	Above average % (n = 142)	p-value	Cramer's V
Not goal or meaning	63.0	56.0	50.0	0.017	0.121
Both goal and meaning	7.4	12.2	25.4		
Goal but not meaning	3.7	4.7	3.5		
Meaning but not goal	25.9	27.1	21.1		

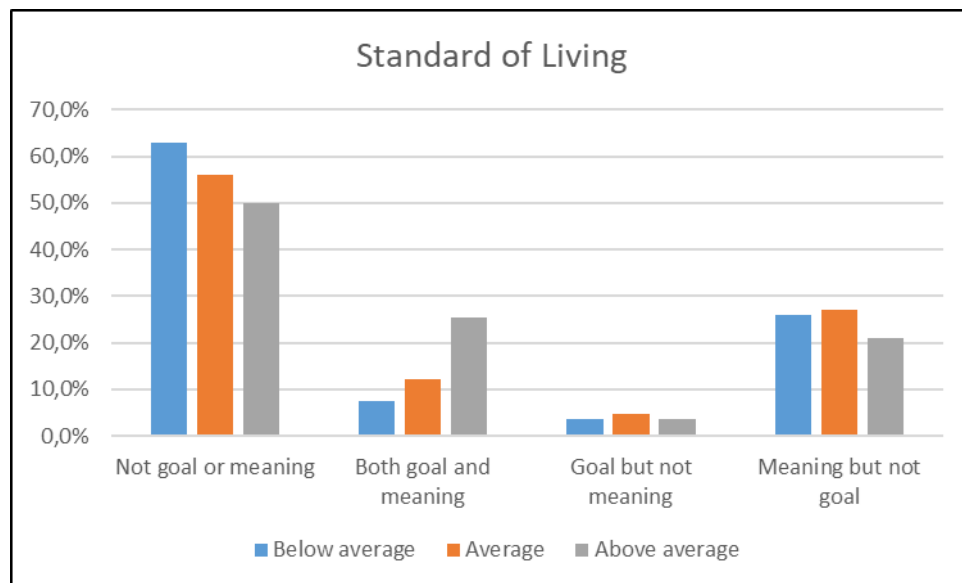


Figure 3. Association between alignment patterns and standard of living.

There was a statistically significant association between alignment patterns and standard of living, but this was of very low practical significance. Specifically, the higher the participants' standard of living, the more likely they were to report spirituality as both a goal and a meaning, and the less likely they were not to mention it as a goal or a meaning.

Education

The results for the association between alignment patterns and level of education are displayed in Table 5 and Figure 4.

Table 5

Association between Alignment Patterns and Levels of Education

	Secondary % (n =208)	Tertiary % (n =166)	Postgraduate % (n = 172)	p-value	Cramer's V
Not goal or meaning	64.9	44.0	51.2	0.000	0.061
Both goal and meaning	6.3	22.9	20.3		
Goal but not meaning	4.3	4.8	3.5		
Meaning but not goal	24.5	28.3	25.0		

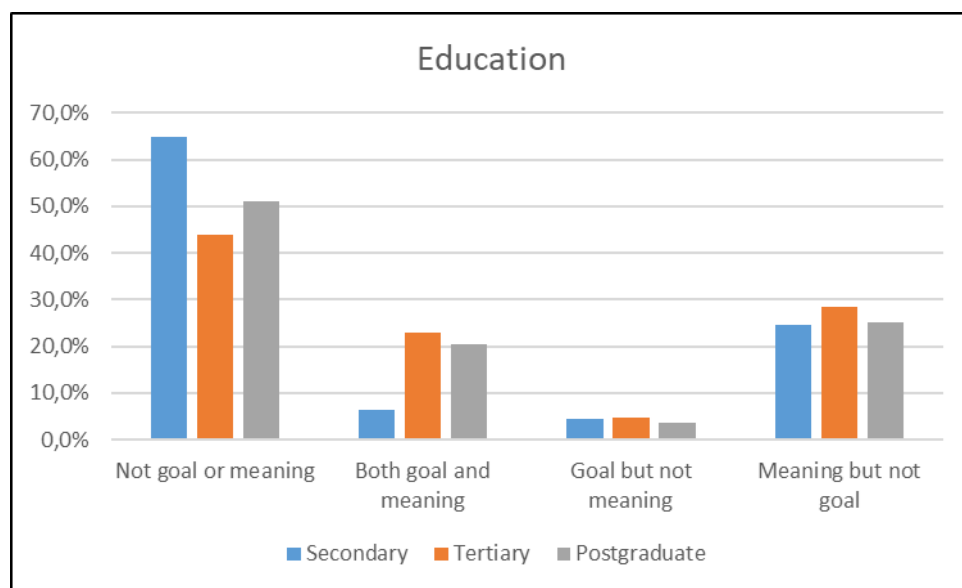


Figure 4. Association between alignment patterns and level of education.

A statistically significant association was found between alignment patterns and education level, but this was of very low practical significance. Specifically, participants with tertiary or postgraduate education were more likely than those with secondary education to report spirituality as both a goal and a meaning, and the less likely to mention it as neither a goal nor a meaning.

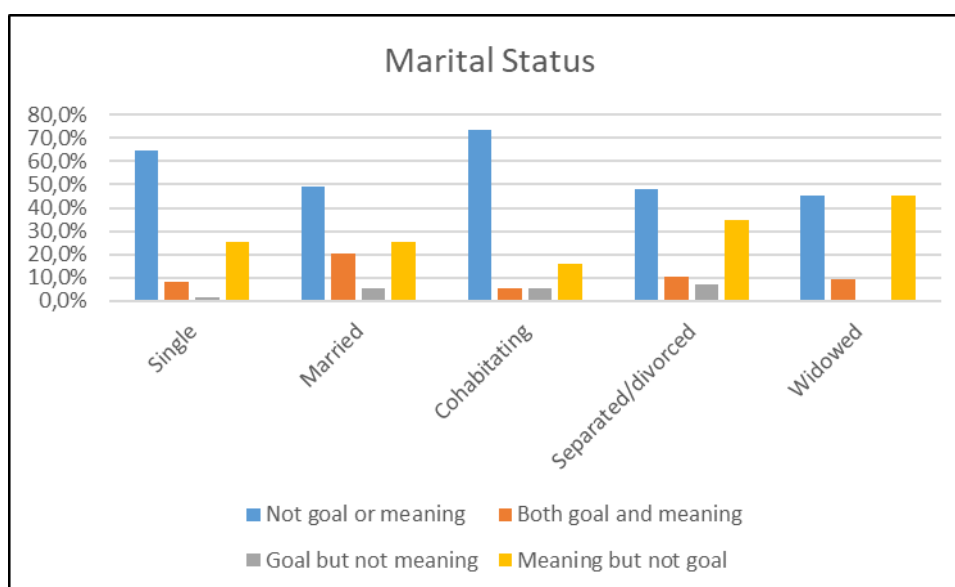
Marital Status

The results for the association between alignment patterns and marital status are displayed in Table 6 and Figure 5.

Table 6

Association between Alignment Patterns and Marital Status Groups

	Single % (n = 142)	Married % (n = 340)	Cohabiting % (n = 19)	Divorced % (n = 29)	Widowed % (n = 11)	p- value	Cramer's V
Not goal or meaning	64.8	49.1	73.7	48.3	45.5	0.013	0.125
Both goal and meaning	8.5	20.3	5.3	10.3	9.1		
Goal but not meaning	1.4	5.3	5.3	6.9	0.0		
Meaning but not goal	25.4	25.3	15.8	34.5	45.5		

*Figure 5. Association between alignment patterns and marital status.*

A statistically significant association was found between being alignment pattern and marital status, but the association was of very low practical significance. From Figure 5 it is

clear that the Widowed group was more likely than the other groups to mention spirituality as a meaning but not a goal, while the Cohabiting group was more likely not to mention spirituality as a goal or a meaning. Note, however, that the sample sizes of these groups were small and therefore the findings should be interpreted with caution.

Work Status

The results for the association between alignment patterns and work status are displayed in Table 7 and Figure 6.

Table 7

Association between Alignment Patterns and Working Groups

	No % (n =57)	Yes % (n =241)	Retired % (n = 3)	Family & housekeeping % (n = 6)	p- value	Cramer's V
Not goal or meaning	59.6	58.9	66.7	50.0	0.930	0.063
Both goal and meaning	10.5	12.9	0.0	0.0		
Goal but not meaning	5.3	4.6	0.0	16.7		
Meaning but not a goal	24.6	23.7	33.3	33.3		

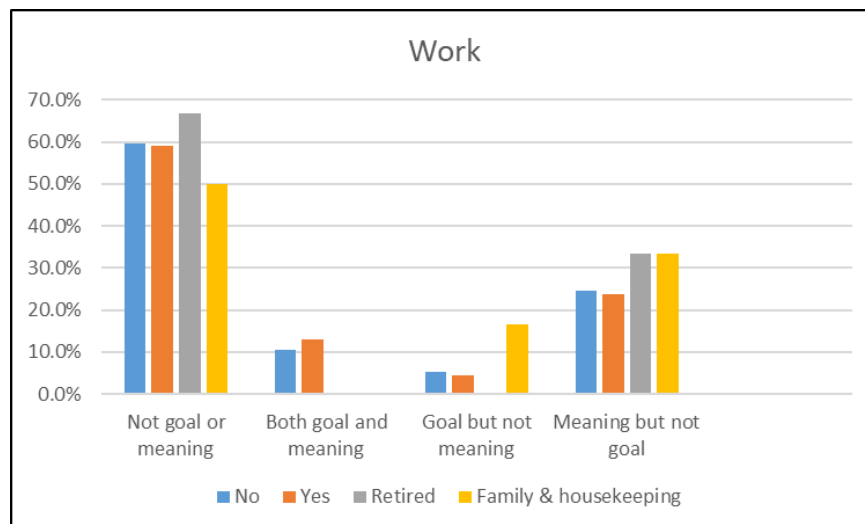


Figure 6. Association between alignment patterns and work status.

No statistically or practically significant association was found between work status and the alignment of goals and meaning in the spirituality domain.

Discussion

The aim of this study was to explore the concordance of goals and meaning in the spirituality domain of life and whether the different patterns of alignment are associated with selected socio-demographic variables.

Findings showed that spirituality was less often mentioned as one of the three most important goals or as a motivation for a goal in their lives than as something meaningful or as a reason for a meaningful thing. This is in line with literature indicating that spirituality is often linked to the experience of meaning in life (Wessels & Muller, 2013).

Some significant associations were found between alignment patterns and the various socio-demographic variables. There was no significant association between gender and the patterns of goal and meaning alignment. Across patterns, it was hinted that spirituality may be more important for women, but no conclusions can be made in this regard. In the literature, it is often indicated that women are more involved with spirituality than men (Reid-Arndt, Smith, Yoon, & Johnstone, 2011), but in this study, no significant association was found

between patterns of alignment and gender. In this study, there was also no practically significant association between age and patterns of alignment of goals and meaning.

In the case of standard of living, there was a statistically significant association with standard of living and alignment patterns in the spirituality domain, where participants with a higher standard of living were more likely to report spirituality as both a goal and a meaning than those with a lower standard of living, and were less likely not to mention it as a goal or a meaning. A similar pattern was found for level of education, where participants with higher levels of education were more likely to report spirituality as both a goal and a meaning than those with lower levels of education, and were less likely to mention it as either a goal or a meaning. Although these findings were not practically significant, it still warrants discussion. Steensland, Wang, and Schmidt (2018) put forward that higher levels of education and income tend to increase spirituality. The present tendency shown in findings needs to be further explored, in particular with a qualitative approach.

Although marital status and alignment patterns in the spiritual domain of life were statistically significantly associated, the association was not practically significant. Since the sample sizes of some of the categories of marital status were very small, this result is interpreted with caution and strong conclusions cannot be drawn. No statistically nor practically significant association was found between work status and the alignment of goals and meaning in the spirituality domain.

Limitations and Recommendations for Future Research

Although the total sample size was $N = 585$, a limitation to this study was that some of the convenience sub-sample sizes were very small and their results could not be generalized. For future studies of this nature, it is recommended that larger sample sizes be used. This study also asked for only three goals and sources of meaning whereas a broader

study could focus specifically on the spirituality domain which may be a better indicator of the importance of spirituality to people.

Future research can further explore the possible associations between alignment patterns and other contextual variables such as urban versus rural groups, or different cultural contexts or different religious groups. Research on goals and meaning in the spirituality domain is scarce in the African context. Some information on spirituality is available in Western contexts. More research on the concordance of goals and meaning in the spirituality domain within the African context is recommended.

Conclusion

Overall, it can be concluded that spirituality seems to be more prominent in people's meaning in life and the sources thereof than in their goals and motivations. The study also showed some indications of an association between socio-demographic variables and the different goal and meaning alignment patterns in the spiritual domain of life. In this South-African group people with a higher standard of living and higher level of education may attach more value to spirituality in both their goals and what they find meaningful in life. Findings only provide indirect support for the self-concordance model.

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Declaration of Conflict of Interest

Neither the student nor any of the supervisors have a conflict of interest to declare.

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Chapter 3

Summary

The aim of this study was to explore the patterns of concordance of goals and meaning in the spirituality domain, and how these patterns were associated with demographic variables. Chapter 1 focused on all the processes of conceptualizing the study and to obtain approval for the study. In Chapter 2, the study was reported in article format. In this report, there were some indications found of an association between socio-demographic variables and the different goal and meaning alignment patterns.

Findings show that very few people mentioned aspects related to spirituality as one of their three most important goals in life or the reasons therefore, but more mentioned spirituality as one of the three most meaningful things in their lives or the motives therefore. The findings only partially support the self-concordance model of Sheldon and Elliot (1999).

Possible Implications for Practice and Further Research

As there has been so little research conducted on the concordance of goals and meaning in the spirituality domain, it may be interesting to know what the concordance of goals and meaning could be not only with socio-demographic variables, but also with well-being factors. This would give a broader picture and further contribute to theory. Future research can further explore the possible associations between alignment patterns and other contextual variables such as urban versus rural groups, or different cultural contexts or different religious groups. Further research is necessary in other domains of life to determine the extent to which similar or different patterns of alignment would be found.

Personal Reflection

The enrollment for this master's degree in positive psychology was the beginning of a journey discovering wonderful fascinating processes in well-being and a personal journey in resilience and self-development. Although this mini-dissertation made use of existing data, it

felt as though I had collected the data as the results came alive and still caught my imagination to find out more about the concordance of goals and meaning in the spirituality domain. To be part of this excellent team of lecturers and students was a privilege and an instructive, positive experience.

Doing this study helped me to grow as researcher. I had to learn how to write in an academic writing style by formulating content which made sense and was understood. I also learned that I cannot write something without validating the statement with supporting literature. No assumptions could be made when writing an article or dissertation paper. It boils down to facts backed by literature. I have no statistical background, and this was a very challenging task for me but also created an understanding for something new which broadens my horizons. During the journey, I learned that there is a huge difference between writing for an academic dissertation and writing in general, and this forced me time and again to restructure the composition of sentences and succession of paragraphs. This was a very good exercise in perseverance.

The guidance and support of my supervisors in the research processes together with their inputs provided an excellent experienced team who gave me direction and a sound basis to work from should I consider future research. This study piqued my interest and was definitely worthwhile; more so because of the fact that very little research has been done on the concordance of goals and meaning in the spirituality domain.

Conclusion

As far as my personal journey is concerned, this mini-dissertation with the supporting structured modules was an immensely meaningful learning experience. I developed in a multitude of aspects in my life.

From the study, the overall conclusion was that spirituality seems to be more prominent to people's meaning in life and the sources thereof than in their goals and

motivations. The study also showed some indications of an association between socio-demographic variables and the different goal and meaning alignment patterns in the spiritual domain of life. Specifically, people with a higher standard of living and higher level of education may attach more value to spirituality in both their goals and what they find meaningful in life. Findings merely provide indirect support for the self-concordance model.

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