

**Concordance of goals and meaning in the
intrapersonal life domain: Associations with
demographic variables and well-being**

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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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Co-supervisor: Prof MP Wissing
Co-supervisor: Ms A Cromhout

Graduation: May 2019

Student number: 12631035

Solemn Declaration by Student

I, A Huisamen, declare herewith that the mini-dissertation entitled **Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being**, which I herewith submit to the North-West University in partial fulfilment of the requirements set for the degree, Master of Arts in Positive Psychology, is my own work, has been language edited, and has not already been submitted to any other university.

A handwritten signature in cursive script that reads "A Huisamen". The signature is written in black ink and is positioned above the printed name.

A Huisamen

Summary

Goals and meaning are important facets of eudaimonic well-being. Scholars have studied goals and meaning separately, but research is sparse on the alignment of goals and meaning, especially in specific life domains and how these may be associated with demographic variables and other indicators of well-being. The FORT3 Research Project investigated the prevalence of levels of psychosocial health with regards to the dynamics and relationships with biomarkers of (ill)health in a South African social context. One aim of the FORT3 project was the exploration of the nature, sources, and motives for positive relationships, goals, and meaning with a mixed method approach; as well as the exploration of the connections between positive relational processes, goals, meaning, and other aspects of psychosocial well-being. Contextual variables and demographic aspects were taken into account. This study formed part of this FORT3 research project in addressing these objectives using data already gathered for this project. The aim of the study was to explore the concordance of goals and meaning in the intrapersonal domain, and how different patterns of concordance were associated with demographic variables and indicators of well-being. A mixed methods convergent parallel design was used with simultaneous cross-sectional collection of quantitative and qualitative data. The coded qualitative data on goals and meaning as manifested in the intrapersonal life domain were analysed to establish the degree of concordance thereof. The results showed that the intrapersonal domain featured stronger in the motivations of people's goals and meaningful things than in the goals and meaningful things themselves. This highlighted the importance of intrapersonal processes as a central point from where motivation and values are initiated. The results from this study partially support the assumptions of the self-concordance model whereby people will pursue goals that are connected to the "self" (self-concordant goals) with more vigour. Associations with alignment patterns and some indices of well-being were detected for certain demographic

variables, namely age, standard of living, education, and marital status. It is therefore important to take note that the life stage and context of people should be taken into account when planning, implementing, and evaluating interventions regarding the goals and meaningful things in their lives, as well as that a one-size-fits-all approach will not be suitable. Further research should also be pursued in order to determine the impact of similar methods in other life domains apart from the intrapersonal. This could provide valuable information regarding the use of the self-concordance model as basis for the application of eudaimonic well-being interventions across all life domains.

Keywords: concordance, goals, meaning, intrapersonal, demographic, well-being measures

Acknowledgements

This research was financially supported in part by the National Research Foundation of South Africa (NRF) (grant numbers: 91557 and 106050). The grantholder acknowledges that opinions, findings, conclusions, and recommendations expressed are those of the authors and that the NRF accepts no liability whatsoever in this regard.

It is with immense gratitude that I acknowledge the support and help of my study leaders, Dr Lusilda Schutte, Prof Marié Wissing, and Ms Amanda Cromhout. Without your unwavering support, professional guidance, motivation, and wise counsel, this study could not have been successfully conducted. Your high academic and ethical standards, coupled with the fact that you embody well-being in the fullest sense of the word, was an inspiration and worthy example to follow. I truly feel privileged to have had the opportunity to stand on the shoulders of giants.

My sincere gratitude to the Positive Psychology staff of the Potchefstroom Campus, for the privilege to participate in the MAPP programme and experience the principles of positive psychology in practice. I want to make special mention of Ms Christelle Liversage, whose constant motivation and support was very valuable to me.

It gives me great pleasure in acknowledging the support of my fellow MAPP students, from whom I learned so much. A special word of thanks to Mandi Liversage and Vasti Nortjé – your friendship, support and motivation were of immeasurable value.

I am indebted to my language editor, Ms Doné Liversage. Thank you very much for your commitment to detail and professional service.

This thesis would have remained a dream had it not been for the constant and loyal support of my family, namely my parents, Louis and Susan Botha; my mother-in-law, Risie Huisamen; and my sister, Marietjie Nel. To my husband, Giel Huisamen – I cannot find words to express my gratitude for your unwavering support, patience, and love.

Last, but not least, my deepest gratitude to my Heavenly Father, for this wonderful life-changing opportunity. May I always be reminded that the fear of the Lord is the beginning of *true* wisdom (Prov. 9:10).

Preface

This dissertation has been done in article format according to the 2018 General Academic Rules (A4.1.1.1.4 and A4.4.2.9) of the North-West University.

This dissertation is submitted in partial fulfilment of the requirements for the taught Master of Arts degree in Positive Psychology (60 credits of the total of 180 credits for the mini-dissertation).

Although the article in Section 2 has been prepared according to the requirements of the specific journal to which it will be submitted, some exceptions are made for purposes of the mini-dissertation and ease of reading thereof, which consist of, in particular, the inclusion of tables and figures in the text instead of separately at the end of the manuscript, and a somewhat longer manuscript. Whereas UK English is used for the mini-dissertation, it will be converted to US English prior to submission for journal publication and consecutive page numbers will be used throughout the mini-dissertation.

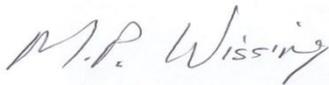
The body of the mini-dissertation consists of three sections. Section 1 reflects the first stage and preparation for the main phase of the research and manuscript, Section 2 includes the research report for evaluation purposes in article format, and Section 3 comprises a brief summative conclusion and reflection on the research process.

Letter of Permission

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



Dr. L. Schutte (Supervisor)



Prof. M. P. Wissing (Co-supervisor)



Ms A. Cromhout (Co-supervisor)

Letter of Consent for an Affiliated Study of the FORT3 Project**(Ethics Number: NWU 00002-07-A2)**

I, Prof. M. P. Wissing, hereby give consent for the student, Dr P Huisamen (student number: 12631035)

To use data from my FORT-research programme for purposes of a master's degree mini-dissertation under my supervision. The specific project from which data will be used is the FORT3 project: The prevalence of levels of psychosocial health: dynamics and relationships with biomarkers of (ill) health in South African social contexts, with the HREC approval number: NWU-0002-07-A2 (renewal valid until 31 August, 2018; next monitoring report has been submitted). The student may use the data from the following questionnaires:

- Sociodemographic questionnaire
- SWLS
- PANAS
- MLQ
- MHC-SF
- EHHI – 2 questions on goals and meaning
- The title of the envisaged study by the student will be:

- Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being



Prof. M. P. Wissing

FORT3 Principal Investigator

AUTHeR

North-West University

Declaration of Language Editor*Editing Certificate*

This document certifies that the manuscript detailed below was edited for proper English language, grammar, punctuation, and spelling by a professional English-language academic editor. Neither the research content nor the author's intentions were altered in any way during the editing process.

Manuscript Title:

Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

Manuscript Author/s:

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Name of Editor: Doné V. Liversage

Signature:



Date Issued: 19 November 2018

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Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

Section 1

1.1 Background and Orientation

As indicated in the Preface, this dissertation is conducted in article format as prescribed in the 2018 General Academic Rules (A4.1.1.1.4 and A4.4.2.9) of the North-West University. This section will reflect the first phase of the research process leading up to the manuscript as the main research report that will be presented in Section 2.

A literature study was done, which led to the development of a research proposal. This proposal firstly had to be approved by a subject research group and secondly by the AUTHeR Research Proposal Committee of the African Unit for Transdisciplinary Health Research (AUTHeR). After approval of the proposal by AUTHeR, an application for ethics approval of the study for the Human Research Ethics Committee (HREC) of the North-West University was prepared and submitted. The approved documentations in this regard, as they were submitted and approved, are included in this section with some minor technical editing. The list of addenda specified in the HREC application are not included for the purposes of this study.

It goes without saying that there is an overlap between these documents, as well as with parts of the manuscript in Section 2, as it all concerns the same research project in different phases, with the manuscript in Section 2 being the final research report.

1.2 Approved Protocol for this Study



Cover Page for Research Proposal		
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Study leader/promoter		
	Dr. L Schutte	
Help-/co-leader/promoter		
	Prof. MP Wissing; Ms Amanda Cromhout	
Number of times of submission of this protocol (Mark were applicable)	1 st	X
	2 nd	
	3 rd	
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	<p>FORT3: The specific aims included to explore:</p> <p>i. the nature, sources and motives for meaning, goals and positive relationships with a qualitative and quantitative mixed methods approach. This will be done amongst others by implementing the Eudaimonic-Hedonic Happiness Investigation instrument (EHHI) 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;</p> <p>ii. 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.</p>		
Will new data be collected?		Yes	
		No	X
Names of small group panel within the school/unit that approved this research protocol (before send to AUTHeR)	1	Prof. M. P. Wissing	
	2	Dr. L. van Biljon	
	3	Ms. C. Liversage	
	4	Ms. A. Cromhout	
	5	Ms. A. du Plessis	
Date of approval by above mentioned panel	2018-06-13		

Executive Summary

It is known that concordance between goals and what is experienced as meaningful is associated with higher levels of well-being in general. However, it is not known how various patterns of such an alignment are manifested specifically on an intrapersonal level. Patterns of alignment are described in this study as no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal.

The objectives of the FORT3 Study include the exploration of the nature, sources, and motives for meaning, goals and positive relationships by using a quantitative and qualitative mixed methods approach. In addition to this, FORT3 aims to study the connections between meaning, goals/purposes, positive relational processes, and other facets of psychosocial well-being, taking demographic and contextual variables into account. The present study will address these aims of FORT3 using existing data from FORT3, by aiming to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level in association with demographic variables and indicators of well-being.

Quantitative and qualitative data was concurrently collected cross-sectionally in a mixed methods convergent parallel design. Building on the coding categories developed by Delle Fave et al. (2011) the qualitative data were transformed to quantitative data. Only the codes referring to intrapersonal psychological processes were analysed to determine the degree of alignment between goals and meaning in this domain. It is expected that understanding of well-being can be improved by considering how demographic variables are associated with alignment patterns of goals and meaning.

1. Proposed Title

Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

Keywords: Goals, meaning, intrapersonal, well-being measures, demographic

2. Problem Statement

This study is an affiliated study of the FORT3 Research Project titled “The prevalence of levels of psycho-social health or well-being and its dynamics and relationships with biomarkers of (ill)health in South African social contexts”.

The objectives of the FORT3 Study include the exploration of the nature, sources, and motives for meaning, goals and positive relationships by using a quantitative and qualitative mixed methods approach. In addition to this, FORT3 aims to study the connections between meaning, goals/purposes, positive relational processes, and other facets of psychosocial well-being, taking demographic and contextual variables into account. The present study will address the aims of FORT3 using existing data from FORT3, exploring the patterns of alignment of valued goals and meaningful things on an intrapersonal level. This study is therefore considered an affiliated study of the FORT3 project which has active ethics approval (NWU 00002-07-A2).

It is known that, in general, concordance between goals and what is experienced as meaningful is associated with higher levels of well-being in general (Delle Fave, Wissing, Brdar, Vella-Brodrick, & Freire, 2013; Liversage, 2015). However, it is not known how various patterns of alignment of goals and meaning are manifested specifically on an intrapersonal level as psychological domain of life. Patterns of alignment are described in this study as no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal. For purposes of this study the words concordance and alignment will be used synonymously.

Many researchers have studied the conditions under which the selection and pursuit of goals have effects on subjective well-being (Emmons, 2003; Delle Fave, Brdar, Wissing, & Vella-Brodrick, 2013; Hennecke & Brandstätter, 2017), but very little is known about the alignment between goals, the reasons and sources of meaning and how it relates to well-being, specifically in the intrapersonal domain of life.

2.1 Goals and Meaning as Facets Associated with Eudaimonic Well-being

In order to understand how goals and meaning fit into well-being, it is important to understand what psycho-social well-being entails. The concept of meaning, goals and the intrapersonal life domain will be explored, as well as the concordance between meaning and goals, specifically focussing on the intrapersonal domain.

2.1.1 Psycho-social well-being.

On the mental health continuum, which ranges from languishing to flourishing, psycho-social well-being manifests on the upper end of the scale (Wissing, Temane, Khumalo, Kruger, & Kruger, 2012). This could also be referred to as thriving, or the good life and positive psychology is the scientific study of the factors that enable individuals, communities, and societies to thrive (Seligman & Csikszentmihalyi, 2000). There are two broad viewpoints of well-being or the good life, namely the hedonic and eudaimonic perspectives. In the general sense hedonic well-being is associated with feeling good, happiness, enjoyment, comfort, satisfaction, and pleasure, whereas eudaimonic well-being is linked to meaning, coping with life challenges, living a life of purpose and involvement in something bigger than the self (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). Both of these perspectives contribute to well-being and experiencing both simultaneously leads to flourishing in life (Wissing, 2014). One of the fundamental aspects of the eudaimonic perspective, which can also be described as “functioning well”, focuses on the complex concept of meaning.

2.1.2 Meaning.

Although meaning is fundamental to human life and has been studied long before positive psychology as a scientific discipline was established, empirical evidence on the sources and dynamics of personal meaning, are still scarce. In their quest to find answers, most researchers focus on the components of comprehension/sense of coherence (cognitive) and/or emotional (subjective) and/or purpose (motivational) facets (Wong, 2017; Wissing, 2014).

One of the first studies on meaning was that of Frankl (1963) on the will to meaning and it also became part of Antonovsky's (1993) conceptualisation of sense of coherence, which is the perspective that life is understandable, manageable, and meaningful (Vinje, Langeland, & Bull, 2016). Baumeister (1991) stated that meaning in life encompasses having a sense of purpose and to understand your role in the world, based on the need for value, efficacy, purpose, and self-worth.

Some more recent models of meaning are those of Steger (2011), which assumes that identity, worldview, and relationships flow into people's meaning systems, which guide their goals and behaviour and help them to identify resources, opportunities, and threats. Martela and Steger (2016) distinguish between, what they call, the three facets of meaning, namely coherence, significance, and purpose. Coherence implicates an understanding of an individual's life making sense, while significance is the sense of life's inherent value and the experience of having a life worth living, closely connected to eudaimonia. Having purpose gives direction in life by equipping an individual with core goals and aims, which provides meaning to events, behaviours or life altogether.

According to Wong (2012), meaning refers to people's experience that their lives and the world around them are reasonably consistent and there are opportunities to experience fulfilment and connectedness in line with their core values. Wong (1998, 2011) identifies

purpose (P), understanding (U), responsible action (R) and enjoyment/evaluation (E, PURE) as the main components of meaning. He also developed the meaning management model which is based on unconditional acceptance of the self, others, death, unavoidable stress and the here and now (Wong, 2008).

Wissing and Delle Fave (2013) suggest that we can differentiate between meaning of life (secured in something of critical value), meaning in life (particular experience of meaning in various life domains) and meaning we give to our lives (the realisation of values expressed in activities and a sense of relational purpose). The second wave of Positive Psychology recognises that well-being cannot only be based on the positive alone, but that a life of meaning should also embrace the dark side of life and pursue self-transcendence (Wong, 2017).

From the earliest of days meaning was considered a crucial element to life that links with life goals and even Aristotle (2002) believed that the highest human virtue entails purpose-driven goal-directed behaviour (Emmons, 2005; Frankl, 1963/1985; Ryff & Singer, 2008; Steger, Oishi & Kashdan, 2009). The physicist Albert Einstein allegedly said that if you wanted to live a happy (or meaningful) life, you must not connect it to people or things, but rather to a goal (Spielberg, Heller, & Miller, 2013). Sedikides et al. (2018) asked the question whether meaning was positively related to the pursuit of one's goals, which brings us to the next concept that will be explored in this study, namely goals.

2.1.3 Goals.

Goals are defined as projects or future states that we desire to reach, uphold, or avoid (Little, 1998). They are outcomes that we think about, plan for, carry out, and sometimes (but not always) complete or succeed at (Gebhardt, 2006; Sheldon & Houser-Marko, 2001). Emmons (2005) linked goal attainment directly to well-being by pointing out that people

naturally link their well-being (on hedonic, as well as eudaimonic level) to their life goals, wishes, and future dreams.

The concept of goals influences other aspects of our lives, like how we think about the world (e.g., Vogt, De Houwer, Moors, Van Damme, & Crombez, 2010), what we remember (Goschke & Kuhl, 1993) and how we think and feel about people and material objects (Ferguson & Bargh, 2004; Fitzsimons & Shah, 2008). They also give structure and meaning (Klinger, 1977) which influences our behaviour in numerous domains, like our health (e.g., King, 2001), work (e.g., Lee, Locke, & Latham, 1989), personality development (e.g., Hudson & Roberts, 2014) and relationships (Gable & Impett, 2012).

In the field of well-being studies, many theorists acknowledge the vital role of goals in well-being (Diener, 2012) and the construct of goals forms a fundamental part of concepts such as personal strivings (Emmons, 2003), meaning and purpose (Klinger, 2012), hope (Snyder, Lopez, Shorey, Rand, & Feldman, 2003), self-motivation (Deci & Ryan, 2008), self-determination (Deci & Ryan, 2000), self-monitoring (Baumeister, Vohs, & Tice, 2007), and self-regulation (Maes & Karoly, 2005).

Distinction has been made between different goal orientations, for example approach and avoidance goals (Baumgardner & Crothers, 2010), intrinsic versus extrinsic goal pursuits (Deci & Ryan, 2000; Sheldon, Ryan, Deci, & Kasser, 2004) and Sedikides et al. (2018) examined the influence of the feeling of nostalgia on goals. It was found that nostalgia, through heightening meaning, places life priorities in perspectives and facilitates effective goal pursuit by motivating individuals to focus on their most important goal. Noori and Narafshan (2018) indicated that the realisation of personal strengths also intrinsically motivated people to set their own goals, as well as the confidence to achieve their goals. There is a link between meaning and goals and this alignment will be discussed next.

2.2 Concordance of Goals and Meaning

A vast amount of research has been done on the associations between goals, meaning and well-being. For example, Frankl (1985) encouraged fellow prisoners in the concentration camps of Auschwitz to survive by finding a goal to pursue, which gave meaning to their lives. Cantor and Sanderson (2003) and McGregor and Little (1998) found that goals enhanced well-being by adding to personal agency and purpose by giving structure and meaning to daily life. This is especially true when goals are realistic and consistent, which is also expressed in Sheldon and Elliot's (1999) theory of goal self-concordance. They believe that goals that are internally generated and consistent with basic psychological needs like autonomy, competence, and social relatedness lead to goal attainment and enhanced well-being.

Zhang, Chen, & Schlegel (2018) expected that goal-directed behaviours would predict the experience of meaning, because it could ask what the point of the effort was if the goal was not reached. Subjective evaluations of goal progress indeed increased sources of meaning, such as competence (Deci & Ryan, 2000), self-efficacy (Baumeister, 1991), or personal growth (Sheldon, Kasser, Smith, & Share, 2002).

In more recent studies Zhang et al. (2018) found that people who do not perform well in goal-pursuit, or in times of frustration or setback, can still find meaning in what they have done. This correlates with the perspectives of Baumeister, Vohs, Aaker and Garbinsky (2013), Frankl (1969), and Park (2010) that people can compensate one source of meaning with another, relying on the self-concordant reasons. The study by Zhang et al. (2018) focussed on the experience of meaning in personal goals and work. They found that the pursuit of non-self-concordant goals can feel meaningful on condition that you feel successful at the goals. Even failed goal pursuits can also generate meaningfulness, as long as the goals are self-concordant. It is evident that goals and meaning play an integral part in well-being and although, as the word suggests, self-concordance and self-determination are strongly

linked to the self, the alignment of goals and meaning and the influence on well-being in the intrapersonal domain of life have not been explored in depth, especially taking demographic variables into consideration.

2.3 Intrapersonal Life Domain

It comes as no surprise that it is challenging to characterise the complex concept of well-being in different life-domains (Cummins, 1996). Sources of meaning and the goals that people set for themselves can broadly be divided into external life contexts and domains, and inner dimensions of self. For the purpose of this study the classification of the Eudaimonic-Hedonic Happiness Investigation (EHHI) instrument developed by Delle Fave et al. (2011) will be used. This classification system includes the life-domains of health, work, family, relationships, standard of living, spirituality/religion, leisure, community/society, life in general, education and personal life, each with various sub-categories and specific codes. These domains and subcategories were identified in a bottom-up investigation of lay person's account of the sources of meaning and the important goals they set for themselves as well as the motives for these. This study will only focus on responses classified under the "personal life domain". The constructs personal life domain and "intrapersonal domain of life" are used as synonyms in this study... In a study that applied this classification system to explore the sources and motives for personal meaning in seven countries (with the participants mostly having a Western heritage), it was found that family and personal life (the intrapersonal life domain) were the most important sources of meaning (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2013). The latter referred mainly to self-transcendent values and indicated the importance of well-being, harmony, personal growth, and self-actualisation. Personal life / the intrapersonal domain, referring mainly to self-transcendent values, emerged as the main motive underlying meaning sources (Delle Fave et al., 2013). From these findings, it is clear that the intrapersonal domain of life played a prominent role in

meaning sources and the motives underlying the sources of meaning. Because of its prominence, this study will focus on the intrapersonal domain of life as distinguished by the EHHI classification system.

On a further level of refinement, the EHHI classification system identifies the following categories within the personal life/intrapersonal life domain: growth / engagement (e.g., becoming a better person, curiosity, self-development), purpose (e.g., to have dreams / wishes/ expectations), competence / mastery (confidence, to achieve hardiness, to seize opportunities), autonomy (e.g., independence, self-determination), self-actualization / expressiveness (e.g., creativity, inspiration, identity), harmony / balance (e.g., self-acceptance, emotional stability, inner peace, contentment), fullness / awareness (e.g., feeling alive, self-awareness), optimism (e.g., positive attitude, hope, humour), satisfaction / achievement / gratification (e.g., goal achievement), joy / happiness / pleasure emotions (e.g., enjoyment), positive experiences / internal states of well-being (e.g., psychological well-being, positive experiences) and no negative feelings (e.g., no worries, to be less anxious).

Du Toit, Wissing, and Khumalo (2014) describe the intrapersonal context as the positive relationship that an individual has with him- or herself that results in self-acceptance, healthy self-esteem, and self-compassion, and the subsequent derivative thereof are self-care, positive functioning, and good relationships. The question arises whether different patterns of concordance of important goals and meaning, as experienced by lay people and captured in the above coding system, are associated with demographic variables such as gender, age, marital status, etcetera, and/or specific indicators of well-being as quantitatively measured.

2.4 Demographic Variables in Well-being

Demographic variables, such as gender, age, educational level, standard of living and marital status can have an influence on well-being (Hansson, Hillerås, & Forsell, 2005; Diener & Ryan, 2009). Although Diener, Oishi, and Lucas (2003) established that the

influence was minimal, this study will explore the association of demographic factors like age, gender, standard of living, education level and marital status with goals and meaning in a South African sample.

2.5 The Present Study

There is a gap in knowledge on the alignment of patterns of goals and meaning in the intrapersonal domain of life and how this may be associated with demographic variables and indicators of well-being. A possible contribution of this study is the possibility to inform the development of well-being interventions in specific demographic contexts. In view of the above, the specific research question that will be addressed in this study, is whether there is alignment between goals and meaning in the intrapersonal domain and how the different patterns of alignment are associated with demographic variables and indicators of well-being.

3. Aim

The aim of this study is to explore the patterns of alignment of valued goals and meaningful things in the intrapersonal domain of life and the associations thereof with demographic variables and indicators of well-being.

4. Method

Before the Method is described, it needs to be stated that the data gathering in the original FORT3 project did not comply with all of the current ethical requirements. Apart from the fact that the informed consent form was not handed to the participants a week before their participation, it was not as detailed as what is currently required. The FORT3 project did nonetheless obtain ethical approval from the relevant ethics committee at the time that the project was developed and subsequently gathered the data according to all the rules at the time. Due to the fact that monitoring reports are annually submitted, as required by the Health Research Ethics Committee of the North-West University, the FORT3 project is active to allow for analysis of existing previously gathered data. The Principal Investigator of the

present study ensures data integrity and the participants gave their consent to what is done in this particular study. In consultations with the Head of the Ethics Office and the Chair of the Health Research Ethics Committee of the North-West University, Potchefstroom Campus, it was clarified that affiliated studies to FORT3 such as the current one is considered in order from an ethical point of view. Further details will be provided below.

4.1. Design

The FORT3 project (Wissing, 2008, 2012) explored the prevalence of levels of psychosocial health and explored the dynamics and relationships with biomarkers of (ill)health in South African social contexts. For the current study quantitative and qualitative data were collected cross-sectionally and a mixed methods convergent parallel design applied (cf. Creswell & Plano Clark, 2011; Plano Clark, 2017). Implementing the coding categories developed by Delle Fave et al. (2011) the qualitative data was transformed to quantitative data by trained coders. For this particular affiliated study, the codes referring to intrapersonal psychological processes will be further analysed.

4.2. Participants

A total of $N = 585$ South African participants from the FORT3 project were included in the study. The recruitment procedure will be described in Section 4.6.6 while the inclusion and exclusion criteria are described in Section 4.6.5. The demographic profile of the participants is presented in the table below.

Gender			
Male		Female	
37.9%		61.9%	
Age ($M=42.15$; $SD=11.508$)			
18 - 25	26 - 40	41 - 60	60 +
8.7%	36.4%	52.0%	2.7%

Marital Status					
Married	Single	Separated / Divorced	Widowed	Live together	Not indicated
62.7%	24.8%	5.8%	1.9%	3.2%	1.5%
Education					
Secondary Education			Tertiary Education		
37.6%			61.7%		
Standard of Living					
Below average	Average		Above average		Not indicated
5.5%	65.8%		25.1%		3.6%

4.3. Measures

4.3.1 Socio-demographic questionnaire.

A socio-demographic questionnaire was used to determine the variables like age, gender, educational level, standard of living, and marital status for each participant.

4.3.2 Satisfaction with Life Scale (SWLS).

The SWLS (Diener, Emmons, Larson, & Griffen, 1985) is a commonly used 5-item scale which measures the cognitive component of subjective well-being. Participants rate their general satisfaction with life on a Likert scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) on the cognitive-judgmental level and total scores can range between 5 and 35. Higher scores are an indication of higher levels of satisfaction with life. With Cronbach's alpha of .87. Diener et al. (1985) reported sufficient internal consistency reliability and a test-retest reliability score of .82. Wissing and Van Eeden (2002) obtained Cronbach's alpha values between .70 and .85 in three age groups in a South African context.

4.3.3 Positive-Negative Affect Schedule (PANAS).

The PANAS (Watson, Clark, & Tellegen, 1988) is a self-report questionnaire, comprising of 10 positive and 10 negative affective adjectives. The respondents must indicate to what extent they experienced each emotion over the past few weeks, ranging from 1 (*Very*

Slightly) to 5 (*Not at All*). Mean scores are calculated for the 10 positive and 10 negative affect items and clinical and non-clinical studies have found the PANAS to be a reliable and valid instrument in the assessment of positive and negative affect (Watson et al., 1988; Vera-Villarroel et al., 2017). In a South African study about parenting styles the Cronbach's alpha for positive affect was .81 and for negative affect .78 (Roman et al., 2015).

4.3.4 Meaning in Life Questionnaire (MLQ).

The MLQ (Steger, Frazier, Oishi, & Kaler, 2006) is a 10-item scale that assesses the presence of and search for meaning in life. The items are rated on a 7-point Likert-type scale ranging from 1 (*Absolutely Untrue*) to 7 (*Absolutely True*). The Presence of Meaning subscale (containing 5 items) measures how much respondents feel their lives have meaning, while the Search for Meaning subscale measures how much they strive to find meaning and understanding in their lives. Each subscale is scored independently and higher scores indicate higher levels of presence of and search for meaning (Steger et al., 2006).

Steger et al. (2006) found support for a two-factor structure and convergent and discriminant validity, with Cronbach's alpha values ranging from .82 to .86 (MLQ-P) and from .86 to .87 (MLQ-S). The MLQ showed good reliability (MLQ-P $\alpha = .85$, MLQ-S $\alpha = .84$) and validity in a South African multi-cultural sample of undergraduate students (Temane, Khumalo, & Wissing, 2012). When conducting Rasch analysis on the MLQ, Schutte, Wissing, Ellis, Jose, & Vella-Brodrick (2016) found that the reversed negated item (item 9) did not display good fit with the Rasch model and that there were too many response categories. The MLQ-P was not sensitive for high levels of presence of meaning, while most participants gained high scores on this subscale.

4.3.5 Mental Health Continuum – Short Form (MHC-SF).

The MHC-SF (Keyes, 2002) measures positive mental health and this 14-item self-report questionnaire combines three components that forms the upper end of the mental

health continuum, namely emotional, psychological, and social well-being (Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011). Participants are required to classify their experiences over the last month on a 6-point Likert-type scale (never, once or twice, about once a week, 2 or 3 times a week, almost every day, or every day).

The first three items form the Emotional well-being subscale (EWB) and is defined in terms of positive affect/satisfaction with life. Social well-being (SWB) is assessed with five items that represent each aspect of Keyes' (1998) model, namely social contribution, social integration, social actualization, social acceptance, and social coherence. Finally, the dimensions of Ryff's (1989) model of psychological well-being (PWB) comprises of six items representing self-acceptance, environmental mastery, positive relations with others, personal growth, autonomy, and purpose in life (Keyes, 2009).

Lamers et al. (2011) studied a Dutch sample who completed the Dutch version of MHC-SF and reported Cronbach's alpha values for the total MHC-SF as .89, and for the subscales as $\alpha = .83$ (EWB), $\alpha = .73$ (SWB), and $\alpha = .83$ (PWB). In a recent study of Argentinian adults the total MHC-SF scale yielded a high internal consistency with a Cronbach's alpha value of .89 (Perugini, De la Iglesia, Solano, & Keyes, 2017). In a South African context, the Setswana version of the MHC-SF was explored and Keyes et al. (2008) reported a Cronbach's alpha values of .74 for the total MHC-SF, with $\alpha = .73$ (EWB), $\alpha = .59$ (SWB), and $\alpha = .67$ (PWB).

4.3.6 Semi-structured open-ended questions on goals and meaning.

Similar questions as were asked by Delle Fave et al. (2011) in the Eudaimonic-Hedonic Happiness Investigation, was used in this study. It addressed goals, goal-motivations as well as meaning and reasons for meaning by asking the following semi-structured open-ended questions:

“Please list the three most important future goals for you,” followed by “For each of them, please specify why it is important”

“Please list the three things that you consider most meaningful in your present life”, followed by “For each of them, please specify why it is meaningful (try to be as specific as possible).”

4.4. Procedure

This affiliated study will make use of a dataset collected in the FORT3 research programme (ethical approval number NWU 00002-07-A2). Post-graduate students who were trained in the administration of psycho-social well-being measures, acted as fieldworkers under supervision of the FORT3 Principle Investigator collect the data. Section 4.6.4. describes the recruitment procedure and Section 4.6.6. outlines the steps of obtaining informed consent. After providing informed consent, the research battery was completed at a time and place that the participants found convenient. The completed questionnaires were returned to the researchers by the fieldworkers. Although the questionnaires mostly had positive content, and the chances of adverse reactions were therefore small, the participants had the option to ignore any question or withdraw from the study if any question elicited a negative emotion. Participants were given the opportunity for debriefing and telephone numbers of counsellors or psychologists could be provided if needed, but no participant indicated a need for debriefing. The participants were not offered any incentives and they were not given feedback on the completed questionnaires, due to the fact that it was not required at the point in time when the data was gathered.

The data was anonymised by submitting the questionnaires and the informed consent forms separately. There was therefore no way to connect any questionnaire to a specific participant. The North-West University’s Statistical Consultation Services captured the quantitative data. By implementing the coding system of Delle Fave et al. (2011), the

qualitative responses on the questions of goals and meaning were transformed into quantitative data – this process will be described in more detail in Section 4.5.1. The procedure that was followed in FORT3 and will be used in this study in order to manage, store and destruct the data, will be explained in Section 4.6.10.

Section 4.5.2 describes how Dr Lusilda Schutte will analyse the quantitative data, send the results to the student researcher and supervisors, where after the student will compile the research report. The monitoring process of the study will be discussed in Section 4.6.11.

4.5 Data Analysis

4.5.1 Qualitative data analysis and trustworthiness.

In order to analyse the responses to the open-ended questions, the coding system developed in the international project team of the Eudaimonic and Hedonic Happiness Investigation project (Delle Fave et al., 2011) was applied to quantify the qualitative data. The system assigns a basic code to all verbal expressions of participants in response to the open-ended questions mentioned in Section 4.3.6. In the development of this system responses were thematically analysed, and captured in codes. In an iterative process the codes were categorized and recategorised, broader themes developed and eventually clustered into life domains as overarching themes. This study will focus on the intrapersonal domain of life. The coding of the South African data was done by one trained coder and checked by another trained coder, where after any discrepancies were discussed in an attempt to reach consensus. If agreement could not be reached, the FORT3 PI came aboard and allocated the final code. There were single cases with coding difficulties and then the international project leader, Prof Antonella Delle Fave, was consulted. New codes were added to the international coding system, if needed.

Trustworthiness of the qualitative data.

By adherence to Guba's (1981) requirements for trustworthiness, namely credibility, transferability, dependability, and confirmability, all efforts were made to ensure trustworthiness in data gathering and analysis.

Credibility: Credibility consists of and is in deference to accuracy and validity, which will be explained in more detail.

Accuracy: The inclusion criteria of the FORT3 project supported the enhancement of quality and accuracy of the data. This entailed selecting participants 18 and above years of age and having at least secondary education, promoting the probability of the necessary cognitive and reflective aptitude to answer the questions.

Peer review: One trained coder assigned codes to the data, where after another coder verified it. If there were any discrepancies, Prof Wissing was consulted. If there were still any uncertainties, the matter was discussed for a final decision by Prof Delle Fave.

Structural coherence: Previous studies (Delle Fave et al., 2011; Delle Fave et al., 2013) have shown the open-ended questions in the EHHI instrument resulted in data which was rich and relevant. South African data was also included in the previous international studies and it is expected that this study will also produce adequate data for this purpose.

Transferability: Transferability ensures applicability of results in other contexts. The fact that there was a good variety within the data set of the participants in terms of gender, age, education level, standard of living and marital status, contributed to transferability. It was however a drawback that the sample only consisted of South Africans and it was only a certain group of the population (e.g., excluding participants without secondary education) which limits the possibility to transfer the findings to other groups. For the sake of clarity in regards to the transferability of the findings, the sample's demographic qualities will be

described in detail, to give an indication of the extent to which the finding can be transferred to other contexts.

Dependability: Dependability refers to the repeatability of findings. The verbal responses of the South African data were coded by a trained coder, hereafter these codes were checked by another trained coder. Differences were discussed to see if agreement can be reached. If not, the FORT3 Principal Investigator was involved in order to assign the final code. In the few cases of coding difficulties consultations took place with an international expert and participating developer of the coding system (Prof Delle Fave). If she deemed it essential, new codes were added to the international coding system. Based on the process followed, it is reasonable to conclude that dependability was ensured).

Confirmability: In an effort to maximise the neutrality of the findings, the coders who coded the qualitative data strived towards objectivity, consciously preventing their own worldview to contaminate the process of interpretation of the data and report writing. Throughout the process they had to adhere to detailed instruction, which contributed to neutrality. The new knowledge or insights of these themes will then be matched with existing theory.

Guba's (1981) requirements were used as basis to ensure trustworthy research, but Tracy's (2010) criteria were also applied. Therefore, the following additions can be added to the above-mentioned:

Worthy topic: The exploration of the alignment between intrapersonal valued goals and meaningful facets and the associations thereof with demographic variables and well-being indicators, is relevant to individuals. Better insight on this matter has the potential to enhance well-being in many different groups.

Significant contribution: A possible contribution of such a study can be the generation of insight and knowledge for a better understanding of the concordance of

meaning and goals and the associations thereof with well-being. This can serve as a basis for further research, exploring and utilising the results to enhance well-being.

4.5.2 Quantitative data analysis and reliability and validity.

The coded (quantified) qualitative data was then combined with the quantitative data from the socio-demographic questionnaire and the Likert-type well-being questionnaires in order to conduct the following quantitative analyses:

1. Using IBM SPSS Statistics 25, the reliability of the scores on the SWLS, PANAS, MLQ, and MHC-SF for the specific sample, will be analysed by using Cronbach's alpha. Cronbach's alpha scores above .7 will be considered supportive of the use of total scores. M-plus version 8 will be used to determine the factorial validity of the scales by means of confirmatory factor analysis.
2. The number of times that the intrapersonal domain was mentioned as an important goal, the reason for an important goal, as something meaningful, and as a reason for something being meaningful will be determined.
3. Using Microsoft Office Excel, the concordance patterns between the "what" and "why" of goals and the "what" and "why" of meaningful things within the intrapersonal domain will be determined for each participant. Four alignment patterns will be distinguished:

1 = The participant did NOT mention the intrapersonal domain as an important goal or a reason therefor, NEITHER as a meaningful thing or motivation therefor.

2 = The participant mentioned the intrapersonal domain as being important in BOTH the participant's goals or the reasons therefor, AND in his/her meaningful things or motivations therefor.

3 = The participant DID mention the intrapersonal domain in his/her important goals or the reasons therefor, BUT NOT in his/her meaningful things or motivations therefor.

4 = The participant did NOT mention the intrapersonal domain in his/her important goals or the reasons therefor, BUT IT WAS mentioned in his/her meaningful things or motivations therefor.

4. With the use of cross-tabulations and corresponding chi-square tests, with Cramer's V as effect size, the associations between the four alignment patterns in 3 and demographic variables (gender, age group, education level, standard of living, and marital status) will be explored.
5. With the use of one-way ANOVAs, the scores on each of the six well-being scales and subscales, namely the SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF total score will be compared for the four pattern groups of concordance that was determined in 3.
6. The next step is a two-way ANOVA being performed where the total scores of the SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF will be compared for the four alignment pattern groups determined in 3, with the respective demographic variables (gender, age group, education level, standard of living, and marital status) incorporated as additional main factors, and the interaction between alignment patterns and the respective demographic variables will also be considered. For each of the well-being scales or subscales, as well as for each demographic variable, a separate two-way ANOVA will be performed, resulting in $6 \times 5 = 30$ two-way ANOVAs.

4.6. Ethical Considerations

4.6.1 Goodwill permission/consent / legal authorisation.

This study will be an affiliated study of the FORT3 research project and involves the analysis of data from FORT3. The FORT3 project that was approved by the Health Research Ethics Committee of the North-West University, with project number NWU 00002-07-A2. 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 to allow for analysis of already gathered data. The aims are of FORT3 included to explore:

- i. “the nature, sources and motives for meaning, goals and positive relationships with a qualitative and quantitative mixed methods approach. This will be done amongst others by implementing the Eudaimonic-Hedonic Happiness Investigation instrument (EHHI) 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”; and
- ii. “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”.

This specific affiliated study aims to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level in association with demographic variables and indicators of well-being. The aim of this affiliated study is thus aligned with the aims of FORT3 in the sense that it will focus on the nature, sources, and motives for meaning and goals with a mixed methods approach and the links between meaning, goals/purposes, and other facets of psychosocial well-being, taking into account some demographic and

contextual variables. All the authors of relevant scales granted their permission for the use of the scales.

4.6.2 Facilities.

The test battery was completed at a time and place that was convenient for the participant. Most of the participants completed the questionnaires at their homes.

4.6.3 Risks and benefits.

The participants could have experienced an emotional reaction due to the nature of the questions in the questionnaires. If they had an adverse reaction, they had the option to either ignore the question or to withdraw from the study. There were psychologists available for debriefing and referral, but no participant indicated such a need. Due to the focus of positive mental health in the questionnaires, the risk was considered minimal.

Although there were no direct benefits for the participants, this study created an opportunity for them to reflect on meaning and goals in their own lives. Through their participation, they also contributed to the scientific knowledge of psychosocial well-being in the South African context, with the potential of improving the well-being and quality of life of people in general. Provided that the risks were minimal, it was considered that the potential advantages outweighed the potential risks in FORT3.

This particular affiliated study does not add any additional risks, because data that will be analysed is anonymous (original participants can in no way be identified); data integrity of the previously gathered data that is used in this study was and will be ensured as described in Section 4.6.10; and the research done in this affiliated study will be monitored as described in Section 4.6.11. Additional risks that may arise when data is not analysed in a scientifically accountable way will also be prevented by the fact that the team working on this study has the necessary expertise to conduct the study (see Section 4.6.12).

4.6.4 Participant recruitment.

Post-graduate students, who acted as fieldworkers under supervision of the researchers, were trained in the administration of psycho-social well-being measures, after which they collected the data in the original FORT3 project. The fieldworkers identified people in their communities who adhered to the necessary criteria for inclusion and a nonprobability snowball method of recruiting participants was used. In this way, participants from all over South Africa were recruited. Participants were in no way pressured or manipulated to participate in the study and they were asked to, if possible, identify other suitable community members who might be interested to participate in the study. The fieldworker followed up this information and if they indicated that they were willing to participate, the potential participants' adherence to the inclusion criteria was verified. The next step was the completion of the informed consent forms and the research battery. The informed consent process is described in Section 4.6.6.

4.6.5 Inclusion and exclusion criteria.

The criteria for inclusion in FORT3 was a minimum age of 18 years old, minimum educational level of Grade 12, and sufficient skills in reading and writing English. This would guarantee adequate comprehension for the questionnaires, which were administered in English. No criteria for exclusion were predetermined.

Inclusion criteria for this specific sub study involved that all the participants in the FORT3 project who responded to the questions relevant to this study and whose qualitative data had been coded according to the coding system developed in the international project team of the Eudaimonic and Hedonic Happiness Investigation project (Delle Fave et al., 2011) were included, which resulted in $N = 585$ which is the sample size of the current study (see section 4.5.1. for more detail on the coding of the qualitative data).

4.6.6 Informed consent.

The fieldworkers in this study were postgraduate students who worked under the supervision of the FORT3 Principal Investigator. They were trained beforehand in the administration of psychosocial well-being measures and explained important information to the participants, for example that their participation was totally voluntary, their anonymous responses would be analysed and that participants were free to withdraw from the study at any stage, without any consequences. No coercion took place and the possibility of emotional reactions; as well as indirect benefits of participation were explained. Participants could address any questions to the principal investigator and the research team and after it was established that they understood the aim, as well as the ethical aspects of the study, they could decide whether they wanted to participate. If they confirmed their willingness, they completed an informed consent form and chose a time and place that was convenient to them, in order to complete the test battery. After completion, they handed the completed questionnaires back to the field workers. Although the latest ethical rules require that consent forms should be received by participants at least a week prior to participation, it did not hold at the time that the data was gathered. The participants could complete the consent forms, as well as the test battery at home, at a time that suited them and it could therefore be assumed that they had ample time to contemplate their participation.

4.6.7 Incentives and/or remuneration of participants.

The participants were not offered any incentives and/or remuneration. 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.

4.6.8 Dissemination of results.

Unfortunately, the contact details of the original participants were not obtained (only their names and signatures were requested on the informed consent page, with no space for contact details) and therefore the results cannot be communicated to the participants of the study. The responsibility of disseminating data to the original participants were not such a clear ethical requirement at the time when the data were gathered and therefore contact details were not obtained – we acknowledge this limitation. It is also not possible to disseminate the findings to a specific community, because participants came from all over South Africa. However, the researchers will counter the limitation and take up the responsibility of ensuring data dissemination by making sure that the findings are indeed shared with the wider scientific and lay community. The results will be presented to a scientific journal in the field, for possible publication and the findings will also be integrated with other results from the FORT3 project in order to be published in the lay press. The findings will be presented at an international or local conference.

4.6.9 Privacy and confidentiality.

Participants could complete the questionnaire at a place that they found convenient, with most participants completing the questionnaires at their homes. 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. Each participant's questionnaire was separated from his or her informed consent form after completion, thus ensuring anonymity of data. The capturing of the quantitative as well as the coded qualitative data was

done anonymously after which the electronic database was stored on password protected computers in locked offices at the North-West University. Group scores will be used for data analysis and therefore no participants will be identified in the analysis and reporting phase of this current affiliated study.

4.6.10 Management, storage, and destruction of data.

Statistical Consultation Services captured the data from the Likert-type questionnaires twice and checked for any inconsistencies. Afterwards the electronic dataset was sent to the FORT3 principal investigator (Prof Marié P. Wissing) and collaborator (Dr Lusilda Schutte).

The hard copies of the questionnaires were collected from Statistical Consultation Services by the FORT3 PI/Collaborator. After the first trained coder coded the qualitative data, it was verified by a second trained coder. Both coders were trained in the EHHI coding system and signed confidentiality agreement forms. Any discrepancies in results were discussed and if they could not reach an agreement, it was forwarded to the FORT3 PI, who made the final decision. If no existing code could be assigned to a response, Prof Delle Fave, leader of the international projects was consulted, and if necessary, the international EHHI team added an appropriate code to the coding system. After finalisation of the codes, two trained research interns, who also signed confidentiality agreement forms, independently captured the codes twice. To verify whether the codes of the two coders corresponded, a checking function in Excel was developed by Dr Schutte (FORT3 collaborator). Any discrepancies were captured again, while overseen and monitored by the FORT3 PI and collaborator. The coders used the hard copies of the questionnaires and did the coding and code checking at their homes. The questionnaires were handed to coders one pile at a time, and after coding the questionnaires were handed back to the FORT3 PI/collaborator. The codes were captured on computers that are in locked offices at the North-West University, where the hard copies of the questionnaires were also secured in locked cupboards for the

duration of data capturing. After the FORT3 PI and collaborator received the captured data, it was removed from the computers of the data capturers and the hard copies of the questionnaires were stored in cupboards in a locked office at the North-West University. Access to these offices were monitored by the FORT3 PI and collaborator. Last mentioned is a statistician, also competent and experienced in data cleaning and management. She combined the quantitative and qualitative data and she, together with the FORT3 PI, kept the electronic data on password-protected computers to ensure data-integrity. If the need arose to amend the data, the other was informed in writing and the updated dataset was shared so that the latest version is on both of their computers. For the purpose of this study, all the analyses will be conducted by the FORT3 collaborator (Dr Schutte) and only the output from the analysis will be made available to the other team members including the student and co-supervisors, who will not have access to the original data. After six years of the last publication from FORT3 data, it will be destroyed.

4.6.11 Monitoring of research.

Compliance by the student researcher to the approved protocol as well as ethical fulfilment, will be ensured by the supervising team (which includes the principal investigator of the FORT3 study to which this study is affiliated). Section 4.6.10 on data management, storage and destruction describe the process of data-management and monitoring.

4.6.12 Competence of researchers.

The study supervisor is Dr Lusilda Schutte, who has a PhD in Psychology and a M.Sc. in Statistics. She is a registered Clinical Psychologist who has experience in statistical consulting. She has been the supervisor and co-supervisor of several students who have undertaken research on a related topic. All statistical analysis for the current study will be done by her and this study's topic also overlap with her research focus and interests. The first co-supervisor, Prof Marié P. Wissing is also holds a PhD in Psychology and is a registered

Clinical Psychologist. She is a Senior Researcher and Professor with an abundance of experience and output in the field of Positive Psychology, which specifically includes outputs relating to the topic and use the methodology of this study. She has supervised more than 100 students and has more than 100 peer-reviewed academic publications. She is a core team member of the international EHHI project, was involved in the development of the coding system and a co-author of previous publications where the EHHI coding system was applied. She is deemed an expert on the theme as well as the methodology of this project.

The second co-supervisor, Ms Amanda Cromhout, holds a M.A. degree in Positive Psychology and is registered for a PhD in Health Sciences with Positive Psychology. The student researcher has a PhD in Social Work and completed her research in Social Work in the field of program evaluation in the field of occupational social work. She has published six articles in academic journals and has 25 years' practical experience as a social worker in the South African Police Service, where the strength-focussed approach is used as a baseline. She has also completed all course work for her M.A. degree in Positive Psychology. She received training in quantitative and qualitative research methods in the taught modules of her degree. Altogether, this research team is considered competent, qualified, and equipped to conduct the present study.

4.6.13 Conflict of interest.

There is no conflict of interest to declare by neither the student nor any of the supervisors.

5. Expected Contribution of the Study

A possible contribution of such a study can be the generation of insight and knowledge for a better understanding of the concordance of meaning and goals in the intrapersonal life domain. This can serve as a basis for further research, exploring and utilising the results to develop programmes that can enhance well-being.

6. Choice and Structure of Research Report

The research report will be according to the one-article format (as indicated in rule A4.4.2.9) for mini-dissertations.

6.1. Structure

The structure of the above-mentioned report will be as follows:

Title page

Acknowledgements

Summary (with key words)

Table of contents

Preface

Letter of permission (from co-authors)

Declaration of no-plagiarism

Section 1: Background and orientation

Section 2: Manuscript for examination

Author guidelines from journal for manuscripts (instructions to authors)

Manuscript

Title page

Abstract

Introduction / Literature review / Problem statement and aim

Method

- Research design
- Participants
- Measures
- Procedure
- Ethical Considerations
- Data Analysis

Results

Discussion

References

Section 3: Conclusion

6.2 Intended Journal

The results of this study will be presented in article format, and the manuscript submitted to the Journal of Positive Psychology or Journal of Psychology in Africa.

7. Budget and Sources of Funding

Due to the fact that the data for this study was gathered as part of the FORT3 project, there will be no costs related to data gathering. All costs will be funded by the student herself.

The following preliminary costs are estimated:

Table 1

Estimated research costs

<i>Item</i>	<i>Detail</i>	<i>Amount</i>
Language editing	30c per word* 260 words per page* 60 pages	R4680
Soft copies of dissertation	3 Copies* (30c per page* 100 pages+ R20 for binding)	R150
Binding hard copies of dissertation	5 copies* 30c per page* 100 pages +R190 for binding)	R1100
Total		R5 930

8. Time Schedule

Table 2

Research schedule 2018

Action required	Submission date	Panel date
Research proposal completed	June 2018	
Small scientific group discussion of proposal	7 June 2018	14 June 2018
Submission of name to AUTHeR scientific panel	3 July 2018	
AUTHeR scientific panel submission of research proposal	3 July 2018	12 July 2018
HREC submission	24 July 2018	16 Aug 2018
Data analyses completed	September 2018	
First Thesis Draft complete	1 October 2018	
First final draft completed	31 October 2018	
Language editing	November 2018	
Final hand-in date	20 November 2018	

9. References

- Antonovsky, A. (1993). The structure and properties of the Sense of Coherence Scale. *Social science and medicine*, 36, 725-733.
- Aristotle (2002). *Nicomachean ethics* (Trans and commentary: Broadie, S., Rowe, C). Oxford, New York.
- Baumeister, R. F. (1991). *Meanings of life*. New York, NY: Guilford Press.
- Baumeister, R., Vohs, K., & Tice, D. (2007). The strength model of self-control. *Current directions in psychological science*, 16(6), 351-355. doi:10.1111/j.1467-8721.2007.00534.x
- Baumeister, R. F., Vohs, K. D., Aaker, J. L., & Garbinsky, E. N. (2013). Some key differences between a happy life and a meaningful life. *The Journal of Positive Psychology*, 8, 505-516. doi:10.1080/17439760.2013.830764
- Baumgardner, S. R., & Crothers, M. K. (2010). *Positive psychology*. New York, NY: Pearson Prentice-Hall.
- Cantor, N., & Sanderson, C. A. (2003). Life task participation and well-being: The importance of taking part in daily life. *Well-being: Foundations of hedonic psychology*, 230-242.
- Creswell, J., & Plano Clark, V. (2011). *Designing and conducting mixed methods research*. Los Angeles: SAGE.
- Cummins, R. A. (1996). The domains of life satisfaction: An attempt to order chaos. *Social indicators research*, 38(3), 303-328.
- Deci, E., & Ryan, R. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68-78. doi:10.1037/0003-066X.55.1.68

- Deci, E., & Ryan, R. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology, 49*(3), 182-185. doi:10.1037/a0012801
- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., and Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness. *Social indicators research, 100*(2), 158-207. doi:10.1007/s11205-010-9632-5
- Delle Fave, A. D., Brdar, I., Wissing, M. P., & Vella-Brodrick, D. A. (2013). Sources and motives for personal meaning in adulthood. *The Journal of Positive Psychology, 8*(6), 517-529. doi:10.1080/17439760.2013.830761
- Delle Fave, A., Wissing, M. P., Brdar, I., Vella-Brodrick, D., & Freire, T. (2013). Cross-cultural perceptions of meaning and goals in adulthood: Their roots and relation with happiness. In A. Waterman (Ed.), *The best within us: Positive psychology perspectives on eudaimonic functioning* (pp. 227-248). Washington DC: American Psychological Association.
- Diener, E. (2012). New findings and future directions for subjective well-being research. *American psychologist, 67*(8), 590-597. doi:10.1037/a0029541
- Diener, E., Emmons, R., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75. doi:10.1207/s15327752jpa4901_13
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual review of psychology, 54*(1), 403-425. doi:10.1146/annurev.psych.54.101601.145056
- Diener, E., & Ryan, K. (2009). Subjective well-being: A general overview. *South African Journal of Psychology, 39*(4), 391-406. doi:10.1177/008124630903900402
- Du Toit, M., Wissing, M. P., & Khumalo, I. P. (2014). *Towards flourishing. Contextualising positive psychology*. Pretoria: Van Schaik.

- Emmons, R. (2003). Personal goals, life meaning, and virtue: Wellsprings of a positive life. In *Flourishing: Positive psychology and the life well-lived*. (American Psychological Association), 105-128. Retrieved from http://www.psychology.hku.hk/ftbcstudies/refbase/docs/emmons/2003/53_Emmons2003.pdf
- Emmons, R. A. (2005). Striving for the sacred: Personal goals, life meaning, and religion. *Journal of Social Issues, 61*, 731-745. doi:10.1111/j.1540-4560.2005.00429
- Frankl, V. E. (1963/1985). *Man's search for meaning*. New York, NY: Pocket Books.
- Frankl, V. E. (1969). *The will to meaning: Foundation and applications of logotherapy*. New York, NY: New American Library.
- Ferguson, M. J., & Bargh, J. A. (2004). Liking is for doing: The effects of goal pursuit on automatic evaluation. *Journal of Personality and Social Psychology, 87*, 557-572.
- Fitzsimons, G. M., & Shah, J. Y. (2008). How goal instrumentality shapes relationship evaluations. *Journal of Personality and Social Psychology, 95*, 319-337.
- Gebhardt, W. (2006). Contextualising health behaviours: The role of personal goals. In *Self-regulation in health behaviour* (pp. 27-44). Chichester, UK: John Wiley & Sons.
- Goschke, T., & Kuhl, J. (1993). Representation of intentions: Persisting activation in memory. *Journal of Experimental Psychology: Learning, memory, and cognition, 19*, 1211-1226.
- Hennecke M., Brandstätter V. (2017). Means, ends, and happiness: The role of goals for subjective well-being. In: Robinson M., Eid M. (Eds.), *The happy mind: Cognitive contributions to well-being*. Springer, Cham.
- Hudson, N. W., & Roberts, B. W. (2014). Goals to change personality traits: Concurrent links between personality traits, daily behavior, and goals to change oneself. *Journal of Research in Personality, 53*, 68-83.

- Gable, S. L., & Impett, E. A. (2012). Approach and avoidance motives and close relationships. *Social and personality psychology compass*, 6(1), 95-108.
doi:10.1111/j.1751-9004.2011.00405.x
- Guba, E. (1981). ERIC/ECTJ Annual review paper: Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational communication and technology*, 29(2), 75-91.
- Hansson, A., Hillerås, P., & Forsell, Y. (2005). Well-being in an adult Swedish population. *Social indicators research*, 74(2), 313-325. doi.org/10.1007/s11205-004-6168-6
- Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, 61, 121-140.
doi.org/10.2307/2787065
- Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Research*, 43, 207-222. doi.org/10.2307/3090197
- Keyes, C. L. M. (2009). Brief description of the Mental Health Continuum Short Form (MHC-SF). *American Journal of Public Health*, 100(12), 2366-71.
doi:10.2105/AJPH.2010.192245
- Keyes, C. L. M., Wissing, M. P., Potgieter, J. C., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum–Short Form (MHC–SF) in Setswana-Speaking South Africans. *Clinical psychology and psychotherapy*, 15, 181-192.
- King, L. A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin*, 27, 798-807.
- Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis, MN: University of Minnesota Press.
- Klinger, E. (2012). The search for meaning in evolutionary goal-theory perspective. *The human quest for meaning: Theories, research, and applications*. 23-55.

- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology, 67*(1), 99-110.
doi:10.1002/jclp.20741
- Lee, T. W., Locke, E. A., & Latham, G. P. (1989). Goal setting theory and job performance. In L. A. Pervin (Ed.), *Goal concepts in personality and social psychology* (pp. 291-326). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Little, B. R. (1998). Personal project pursuit: Dimensions and dynamics of personal meaning. In P. Wong, *The human quest for meaning: A handbook of psychological research and clinical applications*. (pp. 193-212). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Liversage, C. (2015). *Goals and levels of psycho-social well-being: An exploratory study* (Masters dissertation). Retrieved from <https://repository.nwu.ac.za/handle/10394/18965>
- Maes, S., & Karoly, P. (2005). Self-regulation assessment and intervention in physical health and illness: A review. *Applied psychology, 54*(2), 267-299. doi:10.1111/j.1464-0597.2005.00210.x
- Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology, 11*(5), 531-545. doi.org/10.1080/17439760.2015.1137623
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology, 74*(2), 494.
- Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin, 136*, 257-301. doi:10.1037/a0018301
- Noori, S., & Narafshan, M. H. (2018). Promoting goal setting: An experimental study of

- positive psychology in an EFL context. *World Journal of Educational Research*, 5(2), 144-158. doi:10.22158/wjer.v5n2p144
- Plano Clark, V. L. (2017). Mixed methods research. *The Journal of Positive Psychology*, 12(3), 305-306. doi:10.1080/17439760.2016.1262619
- Perugini, M. L. L., de la Iglesia, G., Solano, A. C., & Keyes, C. L. M. (2017). The mental health continuum–short form (MHC–SF) in the Argentinean context: Confirmatory factor analysis and measurement invariance. *Europe's Journal of Psychology*, 13(1), 93-108.
- Roman, N. V., Davids, E. L., Moyo, A., Schilder, L., Lacante, M., & Lens, W. (2015). Parenting styles and psychological needs influences on adolescent life goals and aspirations in a South African setting. *Journal of Psychology in Africa*, 25(4), 305-312.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9, 13-39.
- Schutte, L., Wissing, M. P., Ellis, S. M., Jose, P. E., & Vella-Brodrick, D. A. (2016). Rasch analysis of the Meaning in Life Questionnaire among adults from South Africa, Australia, and New Zealand. *Health and quality of life outcomes*, 14(1), 1-15. doi:10.1186/s12955-016-0414-x
- Sedikides, C., Cheung, W.-Y., Wildschut, T., Hepper, E. G., Baldursson, E., & Pedersen, B. (2018). Nostalgia motivates pursuit of important goals by increasing meaning in life. *European Journal of Social Psychology*, 48, 209-216. doi:10.1002/ejsp.2318
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Special issue on happiness, excellence, and optimal human functioning. *American psychologist*, 55(1), 5-183.

- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482-497. doi:10.1037/0022-3514.76.3.482
- Sheldon, K. M., & Houser-Marko, L. (2001). Self-concordance, goal-attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology*, 80, 152-165.
- Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The independent effects of goal contents and motives on well-being: It's both what you pursue and why you pursue it. *Personality & Social Psychology Bulletin*, 30(4), 475-86.
doi:10.1177/0146167203261883
- Sheldon, K. M., Kasser, T., Smith, K., & Share, T. (2002). Personal goals and psychological growth: Testing an intervention to enhance goal attainment and personality integration. *Journal of Personality*, 70, 5-31. doi:10.1111/1467-6494.00176
- Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, 18(2), 122-139. doi:10.1521/scpq.18.2.122.21854
- Steger, M.F. (2011). *Meaning in life: Catch basin of consciousness*. Invited lecture at the North-West University, Potchefstroom.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in life questionnaire: Assessing the presence of and the search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80-93. doi:10.1037/0022-0167.53.1.80
- Steger, M. F., Oishi, S., & Kashdan, T. B. (2009). Meaning in life across the life span: Levels and correlates of meaning in life from emerging adulthood to older adulthood. *Journal of Positive Psychology*, 4, 43-52.
- Spielberg, J. M., Heller, W., & Miller, G. A. (2013). Hierarchical brain networks active in

- approach and avoidance goal pursuit. *Frontiers in human neuroscience*, 7(June), 1-15.
doi:10.3389/fnhum.2013.00284
- Temane, L., Khumalo, I. P., & Wissing, M. P. (2012). Validation of the meaning in life Questionnaire in a South African context. *Journal of Psychology in Africa*, 24, 51-60.
doi:10.1080/14330237.2014.904088
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative inquiry*, 16, 837-851.
- Vera-Villarroel, P., Urzúa, A., Jaime, D., Contreras, D., Zych, I., Celis-Atenas, K., . . . & Lillo, S. (2017). Positive and Negative Affect Schedule (PANAS): Psychometric properties and discriminative capacity in several Chilean samples. *Evaluation & the health professions*. doi:10.1177/0163278717745344
- Vinje, H. F., Langeland, E., & Bull, T. (2016). Aaron Antonovsky’s development of salutogenesis, 1979 to 1994. In M. B. Mittelmark, S. Sagy, M. Eriksson, G. F. Bauer, J. M. Pelikan, B. Lindström & G. A. Espnes (Eds.), *The handbook of salutogenesis*. Cham, Switzerland: Springer International Publishing AG.
- Vogt, J., De Houwer, J., Moors, A., Van Damme, S., & Crombez, G. (2010). The automatic orienting of attention to goal-relevant stimuli. *Acta Psychologica*, 134, 61-69.
- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*. 54 (6): 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Wissing, M. P. (2014). A path towards flourishing. In M. Wissing, J. Potgieter, T. Guse, T. Khumalo, & L. Nel (Eds.), *Towards flourishing* (pp. 3-16). Pretoria: Van Schaik Publishers.

- Wissing, M. P., & Delle Fave, A. (2013, May). *Meaning and relational well-being: Towards a model*. Paper presented at the Second Conference on Positive Psychology (CPPC) in Brno, Czech Republic.
- Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology / Suid-Afrikaanse Tydskrif vir Sielkunde*, 32, 32-44.
- Wissing, M. P., Temane, Q. M., Khumalo, I. P., Kruger, A., & Kruger, H. H. (2012) in Wissing, M.P. (Ed), *Well-being research in South Africa* (pp. 415-438). Dordrecht: Springer.
- Wong, P. T. P. (1998). Implicit theories of meaningful life and the development of the personal meaning profile. Lawrence Erlbaum Associates Publishers. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 111-140). Mahwah, NJ: Erlbaum.
- Wong, P. T. P. (2008). Meaning management theory and death acceptance. In A. Tomer, G. T. Eliason, & P. T. P. Wong (Eds.), *Existential and spiritual issues in death attitudes* (pp. 65-87). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Wong, P. T. P. (2011). Positive psychology 2.0: Towards a balanced interactive model of the good life. *Canadian Psychology / Psychologie Canadienne*, 52(2), 69-81.
- Wong, P. T. P. (2012). *Acceptance & well-being: A meaning-management perspective*. Paper presented at the Australian Positive Psychology Conference 2012, Wollongong.
- Wong, P. T. P. (2017a) A decade of meaning: Past, present, and future. *Journal of Constructivist Psychology*, 30(1), 82-89, doi:10.1080/10720537.2015.1119085
- Wong, P. T. P. (2017b). Meaning-centred approach to research and the future of humanistic psychology. *The humanistic psychologist*, 45(3), 207-216. doi:10.1037/hum0000062
- Zhang, H., Chen, K., & Schlegel, R. (2018). How do people judge meaning in goal-directed

behaviors: The interplay between self-concordance and performance. *Personality and Social Psychology Bulletin*, doi:10.1177/0146167218771330

1.3 Approved Health Research Ethics Committee Application

In the following part of this section, the application for this study, addressed at the Human Research Ethics Committee (HREC), will be presented.



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)

[Click or tap here to enter text.](#)

Instructions and recommended path for the completion of your application:

- 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.
- All applicants complete § **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.** and **Error! Reference source not found.**.
- Select and complete the research-specific sub-sections from § **Error! Reference source not found.** as applicable to the specific requirements of your study (utilise the table of contents).
- 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 § **Error! Reference source not found.**).
- Also attach an executive summary of the study (see § **Error! Reference source not found.**).

- 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 § **Error! Reference source not found.**, 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-HRECAppl@nwu.ac.za.
- q. All required documentation (as previously outlined) should be attached separately to the aforementioned e-mail as indicated in point **Error! Reference source not found.**
- 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-?????-??-??			
Campus	Potchefstroom	Faculty	Health Sciences
Principle Investigator/Study Leader	Dr L Schutte	Research entity	AUTHeR
Study Title	Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being		

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1.2	NAME OF THE STUDY LEADER/PRIMARY INVESTIGATOR NB! NOT THE STUDENT'S NAME... ..	ERROR! BOOKMARK NOT DEFINED.
1.3	NAME AND SURNAME OF THE STUDENT (IF APPLICABLE)	ERROR! BOOKMARK NOT DEFINED.
1.4	STUDENT NUMBER	ERROR! BOOKMARK NOT DEFINED.
1.5	DISCIPLINE E.G. CONSUMER SCIENCES	ERROR! BOOKMARK NOT DEFINED.
1.6	RESEARCHER INVOLVEMENT	ERROR! BOOKMARK NOT DEFINED.
1.7	TYPE OF STUDY	ERROR! BOOKMARK NOT DEFINED.
1.8	IN THIS STUDY USE IS MADE OF	ERROR! BOOKMARK NOT DEFINED.
1.9	ENVISAGED COMMENCEMENT AND COMPLETION DATE OF THE STUDY	ERROR! BOOKMARK NOT DEFINED.
2.	SECTION 2: STUDY CLASSIFICATION.....	ERROR! BOOKMARK NOT DEFINED.
2.1	NAME OF THE ETHICS COMMITTEE HANDLING THE APPLICATION	ERROR! BOOKMARK NOT DEFINED.
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2.7	FOR THIS STUDY THE FOLLOWING PERSONS WILL BE INCLUDED IN THE STUDY TEAM	ERROR! BOOKMARK NOT DEFINED.
2.8	THE FOLLOWING PROFESSIONAL SUPERVISORY PERSONS ARE INVOLVED IN THIS STUDY (MAY IN NO WAY BE DIRECTLY PART OF THE RESEARCH TEAM).....	ERROR! BOOKMARK NOT DEFINED.
3.	SECTION 3: DETAIL OF STUDY LEADER/PRINCIPAL INVESTIGATOR, CO-WORKERS AND SUPERVISORS	ERROR! BOOKMARK NOT DEFINED.
3.1	DETAILS OF STUDY LEADER/PRINCIPLE INVESTIGATOR.....	ERROR! BOOKMARK NOT DEFINED.
3.2	DETAILS OF STUDY SUPERVISOR	ERROR! BOOKMARK NOT DEFINED.
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3.4	OTHER MEMBERS OF THE STUDY TEAM.....	ERROR! BOOKMARK NOT DEFINED.
3.5	CONFLICT OF INTERESTS AND SPONSORS (IF APPLICABLE)	ERROR! BOOKMARK NOT DEFINED.
3.6	COLLABORATIONS (IF APPLICABLE).....	ERROR! BOOKMARK NOT DEFINED.
3.7	CONTRACTUAL AGREEMENTS (IF APPLICABLE)	ERROR! BOOKMARK NOT DEFINED.
3.8	CONFIDENTIALITY	ERROR! BOOKMARK NOT DEFINED.
3.9	INDEMNITY	ERROR! BOOKMARK NOT DEFINED.
4.	SECTION 4: RESEARCH PROPOSAL AND SCIENTIFIC COMMITTEE APPROVAL.....	ERROR! BOOKMARK NOT DEFINED.
5.	SECTION 5: ADDITIONALLY REQUIRED INFORMATION ABOUT ETHICAL IMPLICATIONS OF THE RESEARCH NOT PROVIDED IN THE PROPOSAL.....	ERROR! BOOKMARK NOT DEFINED.
5.1	WHAT WILL BE EXPECTED OF PARTICIPANTS DURING DATA GATHERING?.....	ERROR! BOOKMARK NOT DEFINED.
5.2	RISKS AND PRECAUTIONS.....	ERROR! BOOKMARK NOT DEFINED.
5.3	BENEFITS FOR PARTICIPANTS	ERROR! BOOKMARK NOT DEFINED.
5.4	RISK/BENEFIT RATIO ANALYSIS.....	ERROR! BOOKMARK NOT DEFINED.
5.5	FACILITIES	ERROR! BOOKMARK NOT DEFINED.
5.6	LEGAL AUTHORISATION	ERROR! BOOKMARK NOT DEFINED.
5.7	GOODWILL PERMISSION /CONSENT	ERROR! BOOKMARK NOT DEFINED.
5.8	CRITERIA FOR PARTICIPANT SELECTION AND RECRUITMENT.....	ERROR! BOOKMARK NOT DEFINED.
5.9	PARTICIPANT RECRUITMENT	ERROR! BOOKMARK NOT DEFINED.
5.10	INFORMED CONSENT (CONSENT, PERMISSION, ASSENT AND DISSENT)	ERROR! BOOKMARK NOT DEFINED.
5.11	INCENTIVES AND/OR REMUNERATION OF PARTICIPANTS	ERROR! BOOKMARK NOT DEFINED.
5.12	ANNOUNCEMENT OF STUDY RESULTS TO PARTICIPANTS	ERROR! BOOKMARK NOT DEFINED.
5.13	PRIVACY AND CONFIDENTIALITY.....	ERROR! BOOKMARK NOT DEFINED.
5.14	MANAGEMENT, STORAGE AND DESTRUCTION OF DATA/BIOLOGICAL SAMPLES.....	ERROR! BOOKMARK NOT DEFINED.
5.15	MONITORING OF RESEARCH	ERROR! BOOKMARK NOT DEFINED.
5.16	MISLEADING OF PARTICIPANTS (IF APPLICABLE).....	ERROR! BOOKMARK NOT DEFINED.
5.17	USE OF PREVIOUSLY COLLECTED DATA/BIOLOGICAL SAMPLES (IF APPLICABLE).....	ERROR! BOOKMARK NOT DEFINED.
5.18	USE OF FILED PRIVILEGED INFORMATION (IF APPLICABLE)	ERROR! BOOKMARK NOT DEFINED.
5.19	JUSTIFIABILITY OF STATISTICAL PROCEDURES	ERROR! BOOKMARK NOT DEFINED.
6.	SECTION 6: MATTERS THAT NECESSITATE ADDITIONAL INFORMATION.....	ERROR! BOOKMARK NOT DEFINED.
6.1	SEC 6A: VULNERABLE PARTICIPANTS	ERROR! BOOKMARK NOT DEFINED.
6.2	SEC 6B: INFECTION, GENETIC MODIFICATION AND COMMERCIALISATION OF CELL AND TISSUE LINES .	ERROR! BOOKMARK NOT DEFINED.
6.3	SEC 6C: USE OF DRUGS/MEDICINES	ERROR! BOOKMARK NOT DEFINED.
6.4	SEC 6D: USE OF DRUG DELIVERY SYSTEMS	ERROR! BOOKMARK NOT DEFINED.
6.5	SEC 6E: USE OF FOOD, FLUIDS OR NUTRIENTS	ERROR! BOOKMARK NOT DEFINED.
6.6	SEC 6F: USE OF RADIO-ACTIVE SUBSTANCES	ERROR! BOOKMARK NOT DEFINED.
6.7	SEC 6G: USE OF TOXIC SUBSTANCES OR DANGEROUS SUBSTANCES.....	ERROR! BOOKMARK NOT DEFINED.
6.8	SEC 6H: MEASURING INSTRUMENTS AND QUESTIONNAIRES THAT NEED PSYCHOMETRIC INTERPRETATION .	ERROR! BOOKMARK NOT DEFINED.
6.9	SEC 6I: POSSIBLE IMPACT ON THE ENVIRONMENT	ERROR! BOOKMARK NOT DEFINED.
7.	SECTION 7: OTHER ETHICS EVALUATIONS AND RISK INSURANCE.....	ERROR! BOOKMARK NOT DEFINED.
7.1	SEC 7A: EVALUATION BY OTHER RESEARCH ETHICS COMMITTEES	ERROR! BOOKMARK NOT DEFINED.

7.2	SEC 7B: RISK INSURANCE.....	ERROR! BOOKMARK NOT DEFINED.
8.	SECTION 8: DECLARATIONS	ERROR! BOOKMARK NOT DEFINED.
8.1	SEC 8A: STUDY LEADER.....	ERROR! BOOKMARK NOT DEFINED.
8.2	SEC 8B: STATISTICAL CONSULTANT (IF APPLICABLE)	ERROR! BOOKMARK NOT DEFINED.
8.3	SEC 8C: RESEARCH DIRECTOR (SCHOOL DIRECTOR IF EDUCATION REQUEST)	ERROR! BOOKMARK NOT DEFINED.

1. SECTION 1: STUDY IDENTIFICATION

Provide the necessary descriptions below to identify this study application:

1.1 Full, descriptive title of the study

Concordance of goals and meaning in the intrapersonal life domain:
Associations with demographic variables and well-being

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

Dr L Schutte

1.3 Name and Surname of the Student (if applicable)

Arnel Huisamen

1.4 Student number

12631035

1.5 Discipline e.g. Consumer sciences

Positive Psychology

1.6 Researcher involvement

Self-initiated research with no student involvement	<input type="checkbox"/>
Self-initiated research with student involvement	<input type="checkbox"/>
Honours study for publication purposes	<input type="checkbox"/>
Masters degree	<input checked="" type="checkbox"/>
PhD degree	<input type="checkbox"/>
Other: Specify Click here to enter text.	

1.7 Type of study

Single study	<input type="checkbox"/>
Larger study	<input type="checkbox"/>
Single study affiliated to another study	<input checked="" type="checkbox"/>
Educational	<input type="checkbox"/>
Other: Specify Click here to enter text.	

1.8 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	X	<input type="checkbox"/>
	Quantitative	X	<input type="checkbox"/>
	Mixed method	X	<input type="checkbox"/>
	Other e.g. program evaluation	<input type="checkbox"/>	X
Filed privileged information (e.g. medical files) or stored biological samples of human origin (e.g. samples collected for another study or medical diagnosis)		<input type="checkbox"/>	X

1.9 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
2018/08/20	2019/12/31

2. 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.

2.1 Name of the Ethics Committee handling the application

Health Research Ethical Committee of the North-West University

2.2 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>)
2018/07/24	Click here to enter a date.

2.3 Version number

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

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

2.4 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	<input checked="" type="checkbox"/>
Medium risk	<input type="checkbox"/>
High risk	<input type="checkbox"/>

Estimated risk level for children/incapacitated adults	
No more than minimal risk of harm (negligible risk)	<input type="checkbox"/>
Greater than minimal risk but provides the prospect of direct benefit for the child/incapacitated adult	<input type="checkbox"/>
Greater than minimal risk with no prospect of direct benefit to the child/incapacitated adult, but a high probability of providing generalizable knowledge	<input type="checkbox"/>

2.5 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Study falls outside a research entity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Study includes postgraduate students (e.g. masters or doctorate)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Study includes contract work	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Education and training (e.g. undergraduate practicals)	For staff of the North-West University	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	For students (undergraduate or postgraduate learners)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	For other learners (not associated with University)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.6 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 **Error! Reference source not found.**

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

Other aspects (specify)

Not applicable

2.7 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 **Error! Reference source not found.**, **Error! Reference source not found.** and **Error! Reference source not found.**

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)	1	0
	Co-workers (researchers outside the North-West University)	1	0
	Co-workers (postgraduate students of the North-West University)	1	0
	Assistants/field workers	0	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
Sponsors		1	0

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

Not applicable

2.8 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 **Error! Reference source not found.**: Study Classification” is complete and correct and that I did not withhold any information.

Yes	No
X	<input type="checkbox"/>

Remember to save your document regularly as you complete it!

3. SECTION 3: DETAIL OF STUDY LEADER/PRINCIPAL INVESTIGATOR, CO-WORKERS AND SUPERVISORS

3.1 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
Schutte	Lusilda	Dr.

NWU Campus	Faculty	Research entity/School
Potchefstroom	Health Sciences	AUTHeR

Position	University No.	Professional Registration (body & category)
Senior Lecturer	13012584	HPCSA Clinical Psychologist

Telephone			NWU-box or Postal Address
Work	Home	Cell	
018-299-1104	Click here to enter text.	Click here to enter text.	Internal Box 500

E-mail Address

Marie.wissing@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)

3.2 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
X	

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

NWU Campus	Faculty	Research entity/School

Position	University no.	Professional Registration (body & category)
	Click here to enter text.	

Telephone			NWU-box or Postal Address
Work	Home	Cell	
	Click here to enter text.	Click here to enter text.	

E-mail Address
Lusilda.Schutte@nwu.acza

[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)

3.3 Professional Supervisors

This section is completed if applicable and mentioned in Section **Error! Reference source not found.**

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.

3.3.1 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)

3.4 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 **Error! Reference source not found.** (Add extra rows to the table if required.)

Name	Qualifications	Professional Registration	Function
Prof M P Wissing	D.Phil., Drs. Phil.	Clinical Psychologist – HPCSA	Co-supervisor
Ms. Amanda Cromhout	LLB MAPP		Co-supervisor
Dr. Arnel Huisamen	PhD (Social Work)	SACSSP	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)

3.5 Conflict of Interests and Sponsors (if applicable)

3.5.1 Declare with full details any conflict of interests that any member of the study team or professional supervisor (see § **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.** and **Error! Reference source not found.**) 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.

3.5.2 Give full details of all sponsors of the study.

Name of Sponsor	Contact Details	Affiliation & Contribution	Nature & Extent
National Research Foundation	Meiring Naudè Road, Brummeria, Pretoria. Tel.no.:+27 (012)481 4000	Monetary Bursary towards study fees	CPRR funding granted to Prof M.P. Wissing

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

3.5.3 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.

3.5.4 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.

3.6 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.

3.7 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]

3.8 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)]

3.9 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!

4. SECTION 4: RESEARCH PROPOSAL AND SCIENTIFIC COMMITTEE APPROVAL

4.1 Executive summary and research proposal

4.1.1 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

It is known that concordance between goals and what is experienced as meaningful is associated with higher levels of well-being in general. However, it is not known how various patterns of such an alignment are manifested specifically on an intrapersonal level. Patterns of alignment are described in this study as no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal.

The objectives of the FORT3 Study include the exploration of the nature, sources and motives for meaning, goals and positive relationships by using a quantitative and qualitative mixed methods approach. In addition to this, FORT3 aims to study the connections between meaning, goals/purposes, positive relational processes and other facets of psychosocial well-being, taking demographic and contextual variables into account. The present study will address these aims of FORT3 using existing data from FORT3, by aiming to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level in association with demographic variables and indicators of well-being.

Quantitative and qualitative data was concurrently collected cross-sectionally in a mixed methods convergent parallel design. Building on the coding categories developed by Delle Fave et al. (2011) the qualitative data were transformed to quantitative data. Only the codes referring to intrapersonal psychological processes were analyzed to determine the degree of alignment between goals and meaning in this domain. It is expected that understanding of well-being can be improved by considering how demographic variables are associated with alignment patterns of goals and meaning.

4.1.2 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]

4.1.3 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 X	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 I M Kruger Dr K Forbes-Biggs
	Date of approval:	2018/07/19
No <input type="checkbox"/>	Reason:	Not applicable

4.1.4 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!

5. 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.

5.1 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?"

The participants were requested to complete a battery of questionnaires which focussed on Psychosocial Well-being. It took approximately 30 minutes to complete and although it related to well-being, some items had the potential to evoke emotional responses from participants. Debriefing was therefore available if any participants were in need of it. Although these participants would have been given the relevant contact numbers of Psychologists or counsellors who were requested to assist them, none of the participants indicated such a need.

5.2 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	<p>Although the questionnaires relate to positive well-being, there is a risk that some items could induce emotional responses, such as catharsis, from participants. On the other hand, boredom or fatigue, could also be possible responses. They were given the opportunity to obtain contact details of qualified professionals to provide debriefing should they feel the need. None of the participants, however, indicated a need for debriefing.</p> <p>No additional / new risks will occur in this affiliated study.</p>

5.3 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 affiliated study may promote a comprehensive understanding of goals and meaning in the intrapersonal domain, why they are important and how they link to demographic variables, contributing to theory at a knowledge level, and on a practical level to the facilitation of well-being interventions. These interventions may be used to contribute to well-being in South Africa in intrapersonal contexts.

5.4 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	<input checked="" type="checkbox"/>		
Risks outweigh the benefit	<input type="checkbox"/>	Justify:	Not applicable

5.5 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. Most of the participants completed the questionnaires at their homes. All participants were given the opportunity to obtain contact details of qualified professionals to provide debriefing if needed, but no participant indicated such a need.

5.6 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]

5.7 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 been granted but the study cannot commence before the HREC has received the final documents.

Not applicable

[PLEASE UPLOAD ALL LETTERS OF GOODWILL PERMISSION]

5.8 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
<p>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.</p> <p>Selection of participants was fair and just - no persons were unfairly excluded.</p>	<p>In order to ensure the likelihood of good understanding of the measures, secondary education was applied as a criteria. Being 18 and above increases the probability of sufficient cognitive and reflected abilities for the participants to answer appropriately. Sufficient fluency in English enhanced the likelihood that participants were enabled to interpret and complete the questionnaires which were administered in English.</p>
Exclusion criteria	Justification
There were no specific exclusion criteria.	Not applicable

5.9 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.

A nonprobability snowball sampling method was used to gather data in the original FORT3 project. Trained in the administration of psycho-social well-being measures, the post-graduate students acting as fieldworkers, identified people in their communities in the various provinces of South Africa who matched the inclusion criteria. These people selected were invited to participate in the study by the fieldworkers with no pressure, manipulation or coercion. The process was overseen by the Principle Investigator. After the study was presented to these participants, they were asked if they know of others in their communities that would like to participate in the study that fitted the inclusion criteria. Contact details were given to the fieldworkers who then contacted the mentioned references. The fieldworkers ensured that all participants that agreed to the study, fitted the inclusion criteria before they received the informed consent form and test battery. The snowball method of sampling helped to gather people that fit the inclusion criteria as well as add diversity to the sample and therefore was chosen as the best sampling method.

5.10 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.

Postgraduate students acted as fieldworkers under the supervision of the researchers and were trained in the administration of psychosocial well-being measures. The fieldworkers explained to all participants that participation was voluntary and that their analysed responses would be used anonymously. They were also free to withdraw from the study at any stage with no consequences. No coercion took place. The indirect benefits as well as the possible emotional responses were also explained by the fieldworkers.

The opportunity was given to the participants to pose any questions regarding the study to the head investigator and research team. After the participants were given the opportunity to ask questions, clarifying and understood the aims of the research as well as the ethics involved, the participants had time to decide if they wanted to participate in the study. When the participants confirmed their willingness to participate in the study, they were handed a consent form and thereafter a test battery to complete at their convenience. After the informed consent form and test battery were completed and returned, these documents were separated by the fieldworkers before they were distributed to the researchers. The current ethics rules stipulate that the consent form must be given at least a week before participation and notice of that is taken. The ethics guidelines were followed during data gathering at that time and was not a prerequisite at that stage. The participants had the opportunity to complete the consent form and test battery at a time and place of their convenience and therefore it can be deemed that the participants had enough time to consider their participation.

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

5.11 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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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.

5.12 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.
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 same information will be given to volunteers at church, to be of guidance and bring understanding into the intrapersonal life domain.
When?	On completion of study
To whom?	Public, educators, local community of student researcher, academics

5.13 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.

Participants could complete the questionnaire at a place that they found convenient, with most participants completing the questionnaires at their homes. 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. 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. 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. 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.

5.14 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 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. 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.

5.15 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.

5.16 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
<input type="checkbox"/>	X	Not applicable	Not applicable
		Disclosure	
		When?	How?
		Not applicable	Not applicable

5.17 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 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 exploration of the nature, sources and motives for positive relationships, goals and meaning with a mixed method approach was an aim of the FORT3 project as well as to explore the connections between positive relational processes, goals, meaning and other aspects of psychosocial well-being. Contextual variables and social-demographic aspects were taken into account.

What will your purpose be?

This study forms part of this FORT3 research project in addressing these aims using data already gathered for this project. It aims to determine how goals and meaning align in the intrapersonal domain of life with specific focus on the associations with demographic variables and 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 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.

See Section 5.10 for more information on the Informed Consent procedure. See Section 5.12 for details on how privacy and confidentiality was ensured.

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..

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

Risks	Precautions
<p>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.</p> <p>Researchers, fieldworkers and assistants: 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, fieldworkers and assistants.</p> <p>Participants:</p> <p>Researchers:</p>	<p>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. No participants indicated such a need.</p> <p>Researchers, fieldworkers and assistants: Researchers, field workers and assistants could have and can still also contact the arranged counsellors or psychologists if needed..</p>

Will re-consent be necessary?

If "Yes" motivate:

- why
- for what
- how this re-consent will be obtained.

Yes	No	Why?	Not applicable
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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)]

5.18 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

5.19 Justifiability of statistical procedures**5.19.1 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 co-study leader who is a qualified statistician and has experience as a statistical consultant

5.19.2 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.

5.19.3 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

5.19.4 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.

The following quantitative analyses will be conducted:

- 1 Cronbach's alpha will be used in preliminary analyses to determine whether all measures to be used in the present study, namely the PANAS, MHC-SF, MLQ and SWLS were reliable for the specific sample. IBM SPSS Statistics will be used to obtain these results. Total scores are generally considered to indicate internal consistency reliability when Cronbach's alpha scores exceed 0.7. Confirmatory factor analysis will also be used to check the factorial validity of the quantitative scales for this sample using M-plus.
- 2 The frequency of the intrapersonal domain being mentioned as an important goal, the reason for an important goal, as something meaningful, and as a reason for something being meaningful, will be determined using IBM SPSS Statistics.
- 3 Using Microsoft Office Excel, the alignment patterns between goals (what and why) and meaningful things (what and why) within the intrapersonal domain will be determined per person. Four alignment patterns will be distinguished:
 - 1 = The intrapersonal 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 intrapersonal 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 intrapersonal domain WAS mentioned in his/her important goals or the reason

therefore, BUT NOT in his/her meaningful things or motivations therefore.
 4 = The intrapersonal 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.

4. 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.

5. One-way ANOVA's will be performed using IBM SPSS where the scores on the SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF total score will be compared for the four alignment pattern groups determined in 4.5.2.3. Note that a separate ANOVA will be performed for each of the well-being scales or subscales. In other words, this step will involve six one-way ANOVA's.

6. Two-way ANOVA's will be performed using IBM SPSS where the scores on the SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF total score will be compared for the four alignment pattern groups determined in 4.5.2.3, the respective demographic variables (gender, age group, education level, standard of living, and marital status), and the interaction between alignment patterns and the respective demographic variables. Note that a separate ANOVA will be performed for each of the well-being scales or subscales and for each demographic variable. In other words, this step will involve $6 \times 5 = 30$ two-way ANOVA's.

Remember to save your document regularly as you complete it!

6. SECTION 6: MATTERS THAT NECESSITATE ADDITIONAL INFORMATION

6.1 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	<input type="checkbox"/>	X
Adults with incapacities	<input type="checkbox"/>	X
Persons in dependent relationships e.g. prisoners	<input type="checkbox"/>	X
Students	<input type="checkbox"/>	X
Persons with physical disabilities	<input type="checkbox"/>	X
Collectivities	<input type="checkbox"/>	X
Research-naïve communities	<input type="checkbox"/>	X
Other	<input type="checkbox"/>	X
Specify: Not applicable		

6.1.1 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

6.1.2 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

6.1.3 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!

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

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

Infection of the cell or tissue line	<input type="checkbox"/>
Genetic modification of the cell or tissue line	<input type="checkbox"/>
Commercialisation of the cell or tissue line	<input type="checkbox"/>

6.2.2 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 **Error! Reference source not found.** ACCORDING TO **Error! Reference source not found.**]

6.2.3 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?	
Click here to enter text.	Click here to enter text.	Level 1	<input type="checkbox"/>
		Level 2	<input type="checkbox"/>
		Level 3	<input type="checkbox"/>

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).

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

Click here to enter text.

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

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	If “Yes” attach a copy of the completed informed consent form
		If “No”, justify why not:
		Click here to enter text.

6.2.6 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
<input type="checkbox"/>	<input type="checkbox"/>	If “No”, justify why not:
Click here to enter text.		

6.2.7 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	
<input type="checkbox"/>	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?	
<input type="checkbox"/>	Principal investigator	Researchers/Students/Fieldworkers
	Click here to enter text.	Click here to enter text.

6.2.8 Facilities

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

Click here to enter text.

6.2.9 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!

6.3 Sec 6c: Use of Drugs/Medicines

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

6.3.1 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 **Error! Reference source not found.** ACCORDING TO **Error! Reference source not found.**]

6.3.2 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.
<input type="checkbox"/>	<input type="checkbox"/>	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).

6.3.3 Special authorisation for use in humans:

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.

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

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

Yes	No	Authorisation Number	Date of Authorisation
<input type="checkbox"/>	<input type="checkbox"/>	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]

- 6.3.4 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!

6.4 Sec 6d: Use of drug delivery systems

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

6.4.1 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 **Error! Reference source not found.** ACCORDING TO **Error! Reference source not found.**]

6.4.2 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	<input type="checkbox"/>	Click here to enter text.	Click here to enter text.
No	<input type="checkbox"/>		

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).

6.4.3 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
<input type="checkbox"/>	<input type="checkbox"/>	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]

- 6.4.4 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!

6.5 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.

6.5.1 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 **Error! Reference source not found.** ACCORDING TO **Error! Reference source not found.**]

6.5.2 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).

6.5.3 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!

6.6 Sec 6f: Use of Radio-Active Substances

6.6.1 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.

6.6.2 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 <input type="checkbox"/>	Details	
	Study leader	Researchers/Students/ /Fieldworkers
	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?	

<input type="checkbox"/>	Study leader Click here to enter text.	Students/Researchers/Fieldworkers 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]

6.6.3 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!

6.7 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.

6.7.1 Number

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

Description	Number
Toxic substances	0
Other dangerous substances	0

6.7.2 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).

- 6.7.3 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!

6.8 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.

6.8.1 Name

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

Description

The Satisfaction with Life Scale (SWLS), the Positive Affect and Negative Affect Schedule (PANAS), the Meaning in Life Questionnaire (MLQ), and the Mental Health Continuum – short form (MHC-SF.)

6.8.2 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
The Satisfaction with Life Scale (SWLS)	Respondent's own assessment of their global life satisfaction

Reliability	Validity
$\alpha=0.70$ and 0.86 for the English version within a multicultural South African sample (Wissing & van Eeden, 2002).	Good construct validity was determined for the English version within a multicultural South African sample (Wissing & van Eeden, 2002)

Other Relevant Information

Psychometric measuring instrument/questionnaire

Approved Name	Normal Application
Positive Affect and Negative Affect Schedule (PANAS)	A self-report measure measuring positive and negative affect.

Reliability	Validity
$\alpha=0.85$ for PA and $\alpha=0.89$ for NA within an adult population in the UK (Crawford & Henry, 2004).	Factorial and external evidence of convergent and discriminant validity was established (Watson et al., 1988; Crawford & Henry, 2004).

Other Relevant Information

Psychometric measuring instrument/questionnaire

Approved Name	Normal Application
Meaning in Life Questionnaire (MLQ)	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
Mental Health Continuum – Short form (MHC-SF)	Measuring positive mental health in terms of three subscales, namely Emotional Well-being, Social Well-being, and Psychological Well-being.

Reliability	Validity
$\alpha = 0.72$ for the Setswana version of the scale (Keyes, et al., 2008)	Construct, convergent and discriminant validity of the scale was found for a mainly Setswana-speaking group (Keyes, et al., 2008)

Other Relevant Information

6.8.3 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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>SWLS – Wissing and van Eeden (2002) obtained sufficient reliability scores (alpha values between 0.70 and 0.86) and construct validity with the use of the English SWLS within a multicultural South African sample. Reliability and validity indicators will be calculated for the present sample.</p> <p>PANAS – Factorial and external evidence of convergent and discriminant validity was established within an adult population in the UK (Crawford & Henry, 2004). Reliability and validity indicators will be calculated for the present sample.</p> <p>MLQ – Temane, Khumalo, and Wissing (2014) investigated the psychometric properties of the MLQ in a South African sample and good validity was determined. Reliability and validity indicators will be calculated for the present sample.</p> <p>MHC-SF – The Setswana version of this scale was validated by Keyes et al. (2008) and construct, convergent and discriminant validity of the scale was found for a mainly Setswana-speaking group. A bifactor exploratory equation modelling approach was applied to the English version of the scale. While the overall scale score was shown to be reliable, subscale scores were not reliable (Schutte & Wissing, 2017). In line with these findings, the present study will only make use of the overall scores of the MHC-SF. Reliability and validity indicators will be calculated for the present sample.</p>

Remember to save your document regularly as you complete it!

6.9 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.

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

Category	Description	Select
0	<p>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.</p>	X
1	<p>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 Potential impact on reputation of the NWU: Potential impact on reputation.</p>	<input type="checkbox"/>
2	<p>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.</p>	<input type="checkbox"/>
3	<p>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.</p>	<input type="checkbox"/>
4	<p>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 Legal implications: Withdrawal of permit. Environmental authorisation required; or Potential impact on reputation of the NWU: Reputation impacted with significant number of key stakeholders.</p>	<input type="checkbox"/>
5	<p>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.</p>	<input type="checkbox"/>

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

Not applicable

6.9.3 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 applicable	Not applicable

Remember to save your document regularly as you complete it!

7. SECTION 7: OTHER ETHICS EVALUATIONS AND RISK INSURANCE

7.1 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!

7.2 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.

7.2.1 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

7.2.2 These potential risks are covered by:

North-West University	X
Sponsor/s	<input type="checkbox"/>
Other: Specify: Click here to enter text.	<input type="checkbox"/>

7.2.3 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?
X	<input type="checkbox"/>	Click here to enter text.

Remember to save your document regularly as you complete it!

8. 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 (see § Error! Reference source not found.)
Dr L Schutte	Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

NWU Ethics Number

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

8.1 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:

- 8.1.1 The information in this application is, to the best of my knowledge, correct and that no ethical codes will be violated with the study;
- 8.1.2 I will make sure that the study is managed ethically justifiably from start to finish;
- 8.1.3 In the case of human participants;
 - 8.1.3.1 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;
 - 8.1.3.2 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;
 - 8.1.3.3 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;
 - 8.1.3.4 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;
 - 8.1.3.5 the written permission of the parent or legal guardians of all minor subjects will be obtained before the research commences;
 - 8.1.3.6 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;
 - 8.1.3.7 confidentiality of all the information of all participants will be respected and ensured;

- 8.1.4 I and all co-workers/assistants/field workers are appropriately qualified, capable and legally competent to implement the proposed studies/procedures/interventions;
- 8.1.5 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;
- 8.1.6 the study is scientifically justifiable;
- 8.1.7 where necessary, all contracts, permits and the applicable documents of relevance will be obtained before the research commences;
- 8.1.8 I will ensure that all data/biological samples are stored safely and remain in the possession of the North-West University;
- 8.1.9 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;
- 8.1.10 I undertake to respect intellectual property rights throughout and to avoid any form of plagiarism;
- 8.1.11 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;
- 8.1.12 I will notify the Health Research Ethics Committee should the study be terminated.

Name (Title, Full Names & Surname)	Qualifications
Dr L Schutte	PhD (Psychology) MSc (Statistics)

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 § Error! Reference source not found.)
Dr. Lusilda Schutte	Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being.

NWU Ethics Number

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

8.2 Sec 8b: Statistical Consultant (If applicable)

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

8.2.1 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
X	<input type="checkbox"/>	The study leader of the present study has a master's degree in statistics and worked at Statistical Consultation Services for a few years. She is experienced in the analyses conducted in this study and currently specialises in social statistics in her research. 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

	2018/07/19
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 § Error! Reference source not found.)
Dr. L. Schutte	Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

NWU Ethics Number
NWU-?????-??-??

8.3 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.

8.3.1 Research Director:

The director of the research entity signs here.

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

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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1.4 Summary

This section confirmed that through a proper literature study on the topic and meeting the general scientific requirements, an acceptable research proposal was developed. The ethical aspects were also considered and addressed satisfactorily to receive all the necessary approvals. Subsequently, the study proceeded to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level in association with demographic variables and indicators of well-being. This will be presented in the next section.

Section 2

Manuscript for Evaluation

2.1 Manuscript in Article Format

This dissertation is in article format according to the 2018 General Academic Rules (A4.1.1.1.4 and A4.4.2.9) of the North-West University. The manuscript in article style follow the requirements of the specific journal to which it will be submitted, namely *The Journal of Positive Psychology*, with some exceptions - inter alia to ease the reading of this dissertation. This applies specifically to the inclusion of tables and figures in the text instead of adding it separately at the end of the manuscript and a somewhat longer manuscript for dissertation purposes.

2.2 Guidelines to Authors for *The Journal of Positive Psychology*

The Journal of Positive Psychology is an international, peer-reviewed journal publishing high-quality, original research. *The Journal of Positive Psychology* provides an interdisciplinary and international forum for the science and application of positive psychology. The Journal is devoted to basic research and professional application on states of optimal human functioning and fulfilment, and the facilitation and promotion of well-being.

Peer Review

Taylor & Francis is committed to peer-review integrity and upholding the highest standards of review. Once your paper has been assessed for suitability by the editor, it will then be single blind peer reviewed by independent, anonymous expert referees.

Preparing Your Paper

Structure

Your paper should be compiled in the following order: title page; abstract; keywords; main text introduction, materials and methods, results, discussion; acknowledgments; declaration

of interest statement; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figures; figure captions (as a list).

Word Limits

Please include a word count for your paper.

A typical paper for this journal should be no more than 7500 words, inclusive of tables, references, figure captions, endnotes.

Style Guidelines

Font: Times New Roman, 12-point, double-line spaced. Use margins of at least 2.5 cm (or 1 inch).

Title: Use bold for your article title, with an initial capital letter for any proper nouns.

Abstract: Indicate the abstract paragraph with a heading or by reducing the font size. Check whether the journal requires a structured abstract or graphical abstract by reading the Instructions for Authors. The Instructions for Authors may also give word limits for your abstract.

Keywords: Please provide keywords to help readers find your article. If the Instructions for Authors do not give a number of keywords to provide, please give five or six.

Headings: Please indicate the level of the section headings in your article:

1. First-level headings (e.g. Introduction, Conclusion) should be in bold, with an initial capital letter for any proper nouns.
2. Second-level headings should be in bold italics, with an initial capital letter for any proper nouns.
3. Third-level headings should be in italics, with an initial capital letter for any proper nouns.
4. Fourth-level headings should be in bold italics, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.

5. Fifth-level headings should be in italics, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.

Tables and figures: Indicate in the text where the tables and figures should appear, for example by inserting [Table 1 near here]. You should supply the actual tables either at the end of the text or in a separate file and the actual figures as separate files. You can find details of the journal Editor's preference in the Instructions for Authors or in the guidance on the submission system. Ensure you have permission to use any tables or figures you are reproducing from another source.

Running heads and **received dates** are not required when submitting a manuscript for review; they will be added during the production process.

Spelling and punctuation: Each journal will have a preference for spelling and punctuation, which is detailed in the Instructions for Authors. Please ensure whichever spelling and punctuation style you use, you apply consistently

Any spelling style is acceptable so long as it is consistent within the manuscript.

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s20 on 1 October 2018

Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

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Abstract

The aim of this study was to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level, and how these different patterns are associated with demographic variables and indicators of well-being. A mixed methods convergent parallel design was used with simultaneous cross-sectional collection of quantitative and qualitative data. Descriptive statistics showed that the intrapersonal domain featured strongly as the reason for goals or for meaningful things. Findings of one- and two-way ANOVAs indicated some significant interactions among patterns of alignment, demographic variables (such as age, level of education, and standard of living), and selected indices of well-being. Only qualified support for the self-concordance model was found. Implications for practice are indicated.

Keywords: goals, meaning, intrapersonal, demographic, well-being measures, self-concordance

Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

It is acknowledged by researchers such as Delle Fave, Wissing, Brdar, Vella-Brodrick, and Freire (2013); Klinger (2012); and Liversage (2015) that the concordance between goals and what people experience as meaningful is associated with higher levels of well-being in general. It is, however, unknown how different patterns of such an alignment are manifested, specifically on an intrapersonal level. For the purpose of this study, the words (intrapersonal) “level” and (intrapersonal) “domain” are used as synonyms; similarly, the words “concordance” and “alignment” are used as synonyms. The patterns of alignment that will be distinguished for purposes of this study are conceptualised and operationalised by Wissing, Carlquist, Martos, and Schutte (2017), namely the patterns of no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal as determined per person and manifested specifically in the intrapersonal life domain.

Although the effects of the pursuit of goals on subjective well-being have been studied widely (Hennecke & Brandstätter, 2017; Liversage, 2015; Monzani et al., 2015), very little is understood about the alignment between goals and meaning and how its concordance or lack thereof correlates with demographic variables, as well as with well-being, specifically in the intrapersonal domain of life. The present study will focus on adding some information towards closing this gap in scientific knowledge.

Goals and meaning as facets associated with well-being

To better understand the relation between goals, meaning, and well-being, it is necessary to understand the concept of psychosocial well-being. In the next paragraph, the concept will be discussed in more detail.

Psychosocial well-being

Psychosocial well-being can also be referred to as thriving or the good life (Peterson, 2013). According to Keyes (2002), psychosocial well-being manifests on the upper end of a mental health continuum, which ranges from languishing to flourishing. Psychosocial well-being is broadly conceptualised in terms of two perspectives, namely the hedonic and eudaimonic perspectives. Generally, hedonic well-being is linked with feeling good (Fredrickson, 2001), happiness, satisfaction (Diener, 2009, 2000), pleasure (Lyubomirsky, King, & Diener, 2005), comfort (Delle Fave et al., 2011), and enjoyment (Waterman, 1993), while eudaimonic well-being is associated with meaning (Steger, Frazier, Oishi, & Kaler, 2006), involvement in something bigger than the self (Ryff, 1989), coping with life challenges (Frankl, 1969) and living a life of purpose (Baumeister & Landau, 2018; Deci & Ryan, 2000; Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). Both these perspectives play an important part in the understanding of well-being, and the presence of hedonic and eudaimonic well-being increases the probability of having a flourishing life (Wissing, 2014). One of the core characteristics of the eudaimonic perspective emphasises the intricate concept of meaning (Deci & Ryan, 2008a).

Meaning

Although meaning is fundamental to human life and has been studied long before positive psychology as a scientific discipline was established, empirical evidence on the sources and dynamics of personal meaning is still scarce. In their quest to find answers, most researchers focus on the comprehension/sense of coherence (cognitive) and/or emotional (subjective) and/or purpose (motivational) facets of meaning (Wissing, 2014).

One of the first works on meaning was that of Victor Frankl (1963) who survived the Holocaust by finding meaning in the context of extreme suffering and sadness, which gave him the will to endure and survive. This basic concept also became part of the

conceptualisation of sense of coherence by Antonovsky (1993), which is the perspective that life is understandable, manageable, and meaningful (Vinje, Langeland, & Bull, 2016).

Baumeister (1991) stated that meaning in life encompasses having a sense of purpose and understanding of one's role in the world, based on the need for value, efficacy, purpose, and self-worth.

Some more recent models of meaning are that of Steger (2011) which states that identity, worldview, and relationships form part of people's meaning systems. It guides their goals and behaviour, and helps them to identify resources, opportunities, and threats. Martela and Steger (2016) distinguish between, what they call, the three core facets of meaning, namely coherence, significance, and purpose. Coherence refers to an understanding that an individual's life makes sense, while significance is the sense that life has inherent value and is worth living. Having purpose gives direction to life by an awareness of core goals and aims that provide meaning to events, behaviours, or life altogether (Van Tongeren et al., 2018).

Wong (2012) described meaning as people's understanding that their lives and the world they live in are reasonably consistent. Wong (1998, 2011) identified the experience of purpose (P), understanding (U), responsible action (R), and enjoyment/evaluation (E, PURE) as the main components of meaning. Wong's (2013) meaning management model involves unconditional acceptance of the self, others, the here and now, unavoidable stress, and death.

According to Wissing and Delle Fave (2013), we can distinguish between meaning *in* life (specific experience of meaning), meaning *of* life (referring to something of critical value), and the meaning we give *to* our lives (referring to realisation of values in behaviour). The second wave of positive psychology (Lomas & Ivtzan, 2016) also recognises that a life of meaning should take the dark side of life into account. Wong (2017) indicated the importance of seeking self-transcendence, where well-being is not just dependent on positive

emotions or circumstances, but rising above the self and connecting to something greater than oneself.

Meaning has always been considered one of the most substantial elements of human life. It helps to contextualise and simplify our social lives (e.g., meaning gives money value), facilitate cultural rituals (e.g., marriage vows signify meaning in relationships), and drive ideologies (e.g., political policies guiding judicial procedures). Individuals are, however, often concerned with the existential question or the meaning of *their* lives (Van Tongeren et al., 2018). People are more motivated if they view their lives as purposeful (Martela & Steger, 2016). In his exploration of the feeling of nostalgia, where an individual looks back at his or her life, Sedikides et al. (2018) found that nostalgia increases meaning, which in turn leads to stronger motivation to pursue one's most important future goals. Landau (2018) explored the role of using metaphors such as *life is a journey* in the understanding of the abstract concept of meaning. This metaphor suggests movement in a certain direction, and points to goal-directed behaviour whereby the individual identifies with being a *traveller*, using *paths* to reach their *destinations* or life goals. These research findings sparked the researcher's curiosity on the patterns of alignment between meaning and goals; therefore, the concept of goals will subsequently be explored.

Goals

Goals can be described as projects people want to reach, uphold, or avoid or outcomes that involve thinking, planning, action, and sometimes (not always) completion (Gebhardt, 2006; Sheldon & Houser-Marko, 2001). Emmons (2005) stated that people naturally link their well-being to their desires, life goals, and future dreams.

Goals also influence people's worldview (e.g., Vogt, De Houwer, Moors, Van Damme, & Crombez, 2010), motivation (Baumeister, 2016), memories (e.g., Goschke & Kuhl, 1993; Ikeda, Castel, & Murayama, 2015), and thoughts and feelings about people and things

(Ferguson & Bargh, 2004; Fitzsimons & Shah, 2008). Goals also provide structure and meaning (Klinger, 1977), and influences choices and behaviour in different domains, such as health (e.g., Carney & Patrick, 2017; King, 2001), work (e.g., Kanfer, Frese, & Johnson, 2017; Lee, Locke, & Latham, 1989), personal development (e.g., Hudson & Roberts, 2014), and relationships (e.g., Baumeister, 2016).

It is widely acknowledged that goals play a crucial role in well-being (Deci & Ryan, 2008b; Diener, 2012; Freund et al., 2010; Kaftan & Freund, 2018; Klug & Maier, 2015; Sheldon & Houser-Marko, 2001), as well as phenomena such as personal strivings (Emmons, 2003; Seaton & Beaumont, 2015), meaning and purpose (Klinger, 2012), hope (Brazeau & Davis, 2018; Snyder, Lopez, Shorey, Rand, & Feldman, 2003), self-motivation (Deci & Ryan, 2008b), self-determination (Davids, Roman, & Kerchhoff, 2017; Deci & Ryan, 2000), self-monitoring (Baumeister, Vohs, & Tice, 2007), and self-regulation (Maes & Karoly, 2005; Van Tongeren et al., 2018).

Theorists differentiate between goal orientations such as approach and avoidance goals (Baumgardner & Crothers, 2010) and the related influences on emotional well-being. Approach goals entail progress toward a required outcome, while avoidance goals imply movement away from an unwanted result (Carver & Scheier, 1990). Kaftan and Freund (2018) indicated that approach goals are generally linked to positive effect, whereas avoidance goals are associated with lower levels of subjective well-being. The self-determination theory (Deci & Ryan, 2000) distinguishes between intrinsic and extrinsic goal pursuit, which is influenced by the fulfilment of basic needs of autonomy, competence, and relatedness. Intrinsic goals (e.g., acceptance, community involvement, physical fitness) are inherently satisfying to pursue because they are likely to meet instinctive psychological needs for autonomy, competence, relatedness, and growth; extrinsic goals (e.g., fame, financial rewards, beauty) are centred around the attainment of physical rewards and positive feedback

from others (Kasser et al. 2013; Schmuck, Kasser, & Ryan, 2000). It has been found that pursuing intrinsic goals such as self-development and social and community involvement predicts self-actualisation, well-being, and optimal functioning. The opposite could result from pursuing extrinsic life goals (e.g., wealth, social recognition, fame, physical attractiveness); the comparative emphasis given to intrinsic as opposed to extrinsic goals could even predict well-being and mental health (Deci & Ryan, 2000; Sheldon, Ryan, Deci, & Kasser, 2004). Noori and Narafshan (2018) also realised that people's insight into their own strengths intrinsically motivated them to set goals and provided them with belief in their ability to achieve their goals. The previous information on meaning and goals leads to the investigation of the nature of the alignment of meaning and goals, which will further be deliberated upon.

Concordance of goals and meaning

The different patterns of concordance identified for purposes of this study are as indicated above, namely no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal in the life domain of focus (intrapersonal), as distinguished by Wissing et al. (2017).

In the field of positive psychology, extensive studies have been done on the connection between goals, meaning, and well-being (Delle Fave, Wissing, et al., 2013; Hennecke & Brandstätter, 2017; Sedikides et al., 2018; Wilson, Wissing, Ndimba, & Somhlaba, 2018). In the concentration camps of Auschwitz, Viktor Frankl (1985) realised that it was better for the well-being and survival of fellow prisoners if they had meaningful goals to pursue. Sheldon and Elliot's (1999) work resulted in the development of the self-concordance model. Self-concordant goals reflect the level of consistency of people's motivation with their deeper values (Sheldon, 2002). Sheldon and Elliot (1999) also describe goals as self-concordant when they are assimilated with the 'self', which implies that different aspects within the self

are aligned or in harmony. The self-concordance model proposes that people put more sustained effort in the pursuit of self-concordant goals, which increases goal progress, most likely resulting in better goal-attainment and in turn leading to greater well-being. Even the process of self-concordant goal-pursuit can be satisfying because it is related to the three basic psychological needs, namely daily activity-based experiences of autonomy, competence, and relatedness (Sheldon & Houser-Marko, 2001). When goals are realistic and consistent, it contributes to well-being through personal agency, which adds daily structure, purpose, and meaning (Cantor & Sanderson, 2003).

Goal-directed behaviour and the experience of goal progress contributes to well-being by the experience of personal growth (Sheldon, Kasser, Smith, & Share, 2002), competence (Sheldon & Elliot, 1999), and the experience of meaning overall (Zhang, Chen, & Schlegel, 2018). When people are frustrated or experience setbacks in goal pursuit, they can still be flexible by replacing one source of meaning with another, on condition that the reasons for goal pursuit are self-concordant (Baumeister, Vohs, Aaker, & Garbinsky, 2013; Frankl, 1969; Park, 2010; Zhang et al., 2018).

A recent study in Africa found that meaning and goals transpired as intrapersonal processes, requiring the fulfilment of basic psychological needs (Wilson et al., 2018). Some theorists also concluded that, even if goals are not self-concordant, it can still be experienced as meaningful if one feels that one is successful at the goal. Even if goals are not reached, goal pursuit can still be meaningful if the goals are self-concordant (Zhang et al., 2018). Thus, both goals and meaning play a significant role in well-being, especially when it is linked to internal sources as described by the self-concordance model (Sheldon & Elliot, 1999) and self-determination theory (Deci & Ryan, 2000). It is therefore important to gain a better understanding whether this model also applies to specific domains in life rather than just to life in general. For the purposes of this study, the focus will be on the intrapersonal life domain.

The psychological or intrapersonal domain of life

According to Du Toit, Wissing, and Khumalo (2014), the intrapersonal context can be described as the relationship that a person has with him- or herself, be it positive or negative. Positive intrapersonal experiences these can be expressed in a healthy self-esteem, self-acceptance, and self-compassion, as well as harmony among the various facets of the self. A good relationship on an intrapersonal level starts with self-awareness and self-knowledge, which develops in the authentic or true self and identity. This is usually associated with self-care, positive functioning, and good relationships. Schlegel, Hicks, Arndt, and King (2009) describe the true self as the genuine self of an individual that is not excessively influenced by external or social elements.

When people are in touch with their true selves, and are pursuing goals that are representative of who they feel they really are, it contributes significantly to the experience of meaning. The true self can also be coupled to other sources of meaning, such as close relationships, trustworthy behaviours, and goals. In the past, most studies on well-being focused on factors that represented the intrapersonal domain from an individualistic perspective without explicitly investigating the psychological or intrapersonal domain as such (Delle Fave, Brdar, Wissing, & Vella-Brodrick, 2013).

Wilson et al. (2018) found that the goals and meaning transpired as intrapersonal processes connected to needs satisfaction and rooted in all relationships. The intrapersonal domain is interconnected to all other domains; Steffel and Oppenheimer (2009) confirmed that participants viewed intrapersonal comparisons as very important to evaluate their happiness. It was also determined that behaviour, thoughts, and emotions are regulated from the intrapersonal character in order to reach meaningful goals (Park, Tsukayama, Goodwin, Patrick, & Duckworth, 2017), leading to well-being.

Although well-being as such is a complex concept, the sources of meaning and goals can be broadly divided into external and internal life domains (Cummins, 1996). This study made use of the classification system of the Eudaimonic-Hedonic Happiness Investigation (EHHI) instrument, which was developed by Delle Fave et al. (2011) through the coding of qualitative data. The EHHI instrument distinguishes the life domains of health, work, family, relationships, standard of living, spirituality/religion, leisure, community/society and personal life, and psychological/intrapersonal life. A bottom-up approach was used to determine these domains by asking lay people to identify their most important goals, things that are most meaningful, and the relevant reasons for the importance of such goals and meaningful things in their lives. This study focuses specifically on the personal/psychological aspects, here designated as the intrapersonal domain of life.

In one of the studies in which this classification system was used, Delle Fave, Brdar, et al. (2013) asked participants from seven countries (participants mostly from Western origin) what the most meaningful things and motives of their personal meaning were. The participants indicated that family and personal life (the intrapersonal life domain) were the most important. The latter referred mostly to self-transcendent values and emphasised the importance of well-being, harmony, personal growth, and self-actualisation. The intrapersonal life domain, with reference mainly to self-transcendent values, emerged as the most important source of meaning (Delle Fave, Brdar, et al., 2013).

The EHHI classification system was utilised to abstract categories based on verbatim responses of participants to questions on important goals, meaningful things, and the reasons why such goals and meaningful things are important. The facets, then grouped together under the personal life/intrapersonal life domain, comprised the following: growth/engagement (e.g., becoming a better person, curiosity, self-development), purpose (e.g., to have dreams/wishes/expectations), competence/mastery (e.g., confidence, achieving hardiness,

seizing opportunities), autonomy (e.g., independence, self-determination), self-actualisation/expressiveness (e.g., creativity, inspiration, identity), harmony/balance (e.g., self-acceptance, emotional stability, inner peace, contentment), fullness/awareness (e.g., feeling alive, self-awareness), optimism (e.g., positive attitude, hope, humour), satisfaction/achievement/gratification (e.g., goal achievement), joy/happiness/pleasure emotions (e.g., enjoyment), positive experiences / inner states of well-being (e.g., psychological well-being, positive experiences), and no negative feelings (e.g., no worries, being less anxious). It may thus be expected that there may be a strong concordance between goals and meaning in the intrapersonal sphere in the case of functioning well. This has, however, yet to be empirically established.

The questions arise whether and/or how various patterns of meaning and goal alignment will be associated with well-being, whether demographic factors may be associated with different patterns of alignment, and whether there is an interaction among patterns of alignment, demographic variables, and indices of well-being on the intrapersonal level.

Demographic variables

Several researchers have questioned whether demographic variables could have an influence on well-being. Diener and Ryan (2009); Keyes and Waterman (2003); and Khumalo, Temane, and Wissing (2012) are some of the academics who have found that factors such as age, gender, socio-economic indicators, and living conditions could partly explain the variance in well-being outcomes. One such example is the influence of culture on gender-based identity and marital role identification, and how this is connected to well-being within different cultural settings (Khumalo et al., 2012). Diener, Oishi, and Lucas (2003), however, found that demographic factors played a small part in the variance of well-being outcomes. In the present study, the researcher will explore the possible association of some demographic factors (gender, age, standard of living, education level, and marital status) with the

alignment of goals and meaning and indices of well-being as manifested in the intrapersonal domain of life. It is imperative to determine the influence of demographic variables in order to plan and customise interventions for specific groups.

The present study

From the above line of argumentation, it is evident that the intrapersonal domain may play a significant role in the experience of well-being. Although research has been conducted on the link between goals, meaning, and well-being, the associations of different concordance patterns of goals and meaning in the intrapersonal domain with well-being and demographic variables have not yet been established. As aforementioned, the different patterns of concordance distinguished for purposes of this study are no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no goal in the life domain of focus (intrapersonal), as distinguished by Wissing et al. (2017). This study is part of the FORT3 research project entitled *The prevalence of levels of psychosocial health: Dynamics and relationships with biomarkers of (ill)health in South African social contexts*.

By using a mixed methods approach, the objectives of the FORT3 study included the exploration of the nature, sources, and motives for meaning, goals, and positive relationships. The study also aimed to explore the connections between meaning, goals/purposes, positive relational processes, and other facets of psychosocial well-being, considering demographic and contextual variables. The aim of the present study was specifically to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level and their association with demographic variables and various indicators of well-being.

Method

Design

A mixed methods convergent parallel design was applied (cf. Creswell & Plano Clark, 2011; Plano Clark, 2017) by collecting quantitative and qualitative data simultaneously and cross-

sectionally. The qualitative data was converted to quantitative data after trained coders assigned codes from the list of codes and coding categories developed by Delle Fave et al. (2011). In this study, the analysis focuses on the codes referring to intrapersonal psychological aspects and processes.

Participants

The participants were an adult South African sample ($N = 585$) who were 18 years of age or older ($M = 42$; $SD = 11.508$). Females made up 61.9% of the sample and 62.7% of the participants were married, followed by 24.8% single participants. The remaining 12.4% of participants were either separated or divorced, widowed, or cohabitants, or did not indicate their marital status.

The participants reported different levels of education, with 30.1% reporting a tertiary level of education and 31.6% reporting a postgraduate level of education. The majority of participants (37.6%) completed grade 12 (minimum education level for participation), while 0.7% did not indicate their education level. More than 90% of the participants described their standard of living as average or above average.

Data gathering

In the present study, the following instruments were implemented.

Quantitative data gathering: Psychosocial well-being measures

1. *Sociodemographic questionnaire*. A sociodemographic questionnaire was used to collect data on age, gender, educational level, standard of living, and marital status.
2. *Satisfaction with Life Scale (SWLS)*. The SWLS (Diener, Emmons, Larson, & Griffen, 1985) is a commonly used 5-item scale that measures the cognitive component of subjective well-being. Participants rate their general satisfaction with life on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and total scores can range between 5 and 35. Higher scores are an indication of higher levels of satisfaction with

life. Diener et al. (1985) reported sufficient internal consistency reliability ($\alpha = .87$), as well as test-retest reliability ($\alpha = .82$). Wissing and Van Eeden (2002) obtained Cronbach's alpha values between .70 and .85 in three age groups within a South African context. In this present study, the SWLS had sufficient reliability with $\alpha = .87$.

3. *Positive and Negative Affect Schedule (PANAS)*. The PANAS (Watson, Clark, & Tellegen, 1988) is a self-report questionnaire, comprising 10 positive and 10 negative adjectives. The respondents are required to indicate to what extent they have experienced each emotion over the past few weeks, ranging from 1 (*very slightly*) to 5 (*not at all*). Mean scores are calculated for the 10 positive and 10 negative affect items. Clinical and nonclinical studies have found the PANAS to be a reliable and valid instrument in the assessment of positive and negative affect (Watson et al., 1988; Vera-Villarreal et al., 2017). In a South African study about parenting styles, the α for positive affect was .81 and for negative affect .78 (Du Plessis & Guse, 2017; Roman et al., 2015). The PANAS had sufficient reliability with $\alpha = .84$ (PANAS-PA) and $\alpha = .89$ (PANAS-NA) for this study.
4. *Meaning in Life Questionnaire (MLQ)*. The MLQ (Steger et al., 2006) is a 10-item scale that assesses the presence of and search for meaning in life. The items are rated on a 7-point Likert-type scale ranging from 1 (*absolutely untrue*) to 7 (*absolutely true*). The 'presence of meaning' subscale (containing 5 items) measures how much respondents feel that their lives have meaning, while the 'search for meaning' subscale measures how much they strive to find meaning and understanding in their lives. Each subscale is scored independently. Higher scores indicate higher levels of presence of and search for meaning (Steger et al., 2006).

Steger et al. (2006) found support for a two-factor structure and convergent and discriminant validity, with Cronbach's alpha values ranging from .82 to .86 (MLQ-P)

and from .86 to .87 (MLQ-S). The MLQ showed good reliability for the MLQ-P ($\alpha = .85$) and MLQ-S ($\alpha = .84$) in a South African multicultural sample of undergraduate students (Temane, Khumalo, & Wissing, 2014). Schutte, Wissing, Ellis, Jose, & Vella-Brodrick (2016) found that the MLQ had too many response categories for the specific sample. The reverse phrased item (item 9) was removed, since it proved problematic in the sample. The MLQ-P was not sensitive for high levels of presence of meaning, while most participants gained high scores on this subscale. In the present study, the two subscales had sufficient reliability with $\alpha = .83$ (MLQ-P) and $\alpha = .89$ (MLQ-S).

5. *Mental Health Continuum – Short Form (MHC-SF)*. The MHC-SF (Keyes et al., 2008) is a 14-item self-report questionnaire that measures mental health in terms of three subscales, namely Emotional Well-being (EWB), Psychological Well-being (PWB), and Social Well-being (SWB) (Keyes, 2002; Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011). Participants are required to classify their experiences over the last month on a 6-point Likert-type scale (*never, once or twice, about once a week, 2 or 3 times a week, almost every day, every day*).

The first three items form the EWB subscale and is defined in terms of positive affect / satisfaction with life. SWB is assessed with five items that represent each aspect of Keyes' (1998) model, namely social contribution, social integration, social actualisation, social acceptance, and social coherence. Finally, the PWB subscale comprises the six items discerned by Ryff (1989) as representing psychological well-being, namely self-acceptance, environmental mastery, positive relations with others, personal growth, autonomy, and purpose in life (Keyes, 2009).

Lamers et al. (2011) reported Cronbach's alpha values for the total MHC-SF as $\alpha = .89$, and for the subscales as $\alpha = .83$ (EWB), $\alpha = .73$ (SWB), and $\alpha = .83$ (PWB) in a Dutch sample completed in the Dutch version of MHC-SF. In a recent study of

Argentinian adults, the total MHC-SF scale yielded a high internal consistency with an α value of .89 (Perugini, De la Iglesia, Solano, & Keyes, 2017). In a South African context, the Setswana version of MHC-SF was validated by Keyes et al. (2008) who reported Cronbach's alpha values of .74 for the total MHC-SF, with $\alpha = .73$ (EWB), $\alpha = .59$ (SWB), and $\alpha = .67$ (PWB). For the present study, the total MHC-SF had sufficient internal consistency reliability ($\alpha = .89$).

Qualitative data gathering

The researcher used a qualitative data gathering tool comprising semi-structured, open-ended questions on goals and meaning. These questions were the same as those formulated by Delle Fave et al. (2011) in the international Eudaimonic-Hedonic Happiness Investigation project and included in the FORT 3 study. The questions referred to goals and meaning, as well as the reasons for the importance thereof. The following semi-structured open-ended questions were asked:

“Please list the three most important future goals for you,” followed by “For each of them, please specify why it is important.”

“Please list the three things that you consider most meaningful in your present life,” followed by “For each of them, please specify why it is meaningful (try to be as specific as possible).”

Procedure

The present study is based on data collected in the FORT 3 research programme (ethical approval number NWU 00002-07-A2). Postgraduate students who were trained in the administration of psychosocial well-being measures served as fieldworkers, under supervision of the FORT 3 principle investigator, to collect the data. Data was collected via the snowball method. The fieldworkers explained to the participants all participant-related details and procedures regarding the research process. Participation was voluntary and after

providing informed consent, the research battery was completed in English at a time and place that the participants found convenient. Participation was anonymous and confidentiality was ensured. The participants could withdraw from the study at any time without negative consequences. Participants did not receive any incentives, but they were given the opportunity for debriefing and referral to professional service providers.

Data analysis

Qualitative data analysis and trustworthiness

The data was anonymised by submitting the questionnaires and the informed consent forms separately. The Statistical Consultation Services of the North-West University captured the quantitative data. Through the implementation of the coding system of Delle Fave et al. (2011), the qualitative responses on the questions of goals and meaning were transformed into quantitative data.

The system assigned a basic code to all verbal expressions of participants in response to the relevant open-ended questions. Responses were analysed thematically and captured in codes. In an iterative process, the codes were categorised and recategorised, broader themes developed, and the themes eventually clustered into life domains as overarching themes. This study focused on the intrapersonal domain of life. The coding of the South African data was done by one trained coder and checked by another trained co-coder, whereafter any discrepancies were discussed with the third author as project leader to reach consensus. By adherence to Guba's (1981) requirements for trustworthiness (namely credibility, transferability, dependability, and confirmability), all efforts were made to ensure trustworthiness in data gathering, coding, and analysis.

Quantitative data analysis and reliability and validity

The coded (quantified) qualitative data was combined with the quantitative data from the sociodemographic questionnaire and the Likert-type well-being questionnaires in order to conduct the following quantitative analyses:

1. Using IBM SPSS Statistics 25, the internal consistency reliability (Cronbach's alpha) of the scores on the SWLS, PANAS, MLQ, and MHC-SF for the current sample was calculated, and α scores above .70 was considered sufficient for the use of the (sub)scales (Pallant, 2013). Mplus version 8 was used to determine the factorial validity of the scales by means of confirmatory factor analysis. Construct validity for all the scales was supported; therefore, the psychometric properties of the scales were found in order to proceed with the subsequent analysis and thereby answer the research questions.
2. The frequency with which the intrapersonal domain was mentioned as an important goal, the reason for an important goal, as something meaningful, and as a reason for something being meaningful was determined.
3. Using Microsoft Office Excel, the concordance patterns between the "what" and "why" of goals and the "what" and "why" of meaningful things within the intrapersonal domain was determined for each participant. Four alignment patterns were distinguished (cf.

Wissing et al., 2017):

- The participant did *neither* mention a facet linked to the intrapersonal domain as an important goal or a reason therefor, *nor* as a meaningful thing or motivation therefor.
- The participant mentioned the intrapersonal domain as being important in *both* the participant's goals or the reasons therefor, *and* in his/her meaningful things or reasons therefor.
- The participant *did* mention the intrapersonal domain in his/her important goals or the reasons therefor, *but not* in his/her meaningful things or motivations therefor.

- The participant did *not* mention the intrapersonal domain in his/her important goals or the reasons therefor, *but did* in his/her meaningful things or motivations therefor.
4. Using cross-tabulations, chi-square tests, and Cramer's V as effect size, the associations between the four alignment patterns and demographic variables (e.g., gender, age group, education level, standard of living, and marital status) was explored.
 5. With the use of one-way ANOVAs, the scores on each of the six well-being scales and subscales (namely SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF total score) were compared for the four pattern groups of concordance, as referred above. For each scale, a separate ANOVA was conducted.
 6. A two-way ANOVA was then performed to determine the association among the total scores on each of the well-being measures (SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF), alignment pattern groups, and demographic variables (gender, age group, education level, standard of living, and marital status). For each of the well-being scales or subscales, as well as for each demographic variable, a separate two-way ANOVA was performed, resulting in $6 \times 5 = 30$ two-way ANOVAs.

Results

The results will subsequently be presented by means of tables, figures, and related descriptions. The report of frequencies of goals and meaning in the intrapersonal domain will be followed by the associations of alignment patterns with the demographic variables of gender, age, standard of living, education, and marital status, and with indices of well-being. Lastly, findings on the interaction among all three main variables (alignment patterns, demographic variables, and well-being indices) will be reported.

Frequencies of goals and meaning

Table 1 indicates the frequency with which participants indicated the intrapersonal domain as a goal, a meaningful thing, or as the reason for a goal or meaningful thing.

Table 1

Frequencies of goals and meaning (what and why) in the intrapersonal domain

Frequency	Goal	Reason for goal	Meaningful thing	Reason for meaningful thing
0	74.5%	26.8%	81.5%	16.2%
1	20.7%	32.5%	16.2%	28.2%
2	3.6%	23.9%	1.9%	27.7%
3	0.7%	10.1%	0.2%	16.9%
4	-	3.8%	-	3.9%
5	-	0.3%	-	1.5%
6	-	-	-	0.7%
Missing	0.5%	2.6%	0.2%	4.8%
Total	100%	100%	100%	100%
Sum of 1-6	25%	70.6%	18.3%	78.9%

Frequency 0 = no mention of intrapersonal domain (IPD) as a goal or meaning, 1 = indicated IPD once as goal or meaning, 2 = indicated IPD twice as a goal or meaning, 3 = indicated IPD three times as a goal or meaning, 4 = indicated IPD four times as a goal or meaning, 5 = indicated IPD five times as a goal or meaning, and 6 = indicated IPD six times as a goal or meaning.

Table 1 shows that, although some participants specified facets related to the intrapersonal domain as goals or as something meaningful, the intrapersonal domain was more frequently mentioned as the reason for goals or for meaningful things.

Associations between alignment patterns and demographic variables

The next step was to establish the association between alignment patterns and demographic variables. The different demographic variables were gender, age, standard of living, education, and marital status.

In the following analyses, the chi-square test relies on the assumption that the observations are independent and that the expected count of all cells are large enough, that is, a minimum value of five is often expected to be sufficient (Field, 2018). The observations were independent in the present study, and the count per cell was larger than the minimum in the cases of gender and educational levels as demographic variables, but not in the other

instances. Thus, the chi-square needs to be interpreted with caution in the latter cases. As determinant of effect size, the Cramer's V is reported, and interpreted as follows: the value of 0.19 indicates a very low association; 0.20-0.39 low association; 0.40-0.69 modest association; 0.70-0.89 high association; 0.90-1 very high association (David & Sutton, 2004).

Subsequently, the alignment patterns of goals and meaning, as associated with the demographic variables, are depicted in Figures 1 to 5.

Gender

As indicated in Figure 1, the majority of males and females indicated the intrapersonal domain as both a goal and a meaningful thing, with small percentages representing the remaining patterns. The difference between the two genders were not statistically significant. The same results were not found for the other demographic variables.

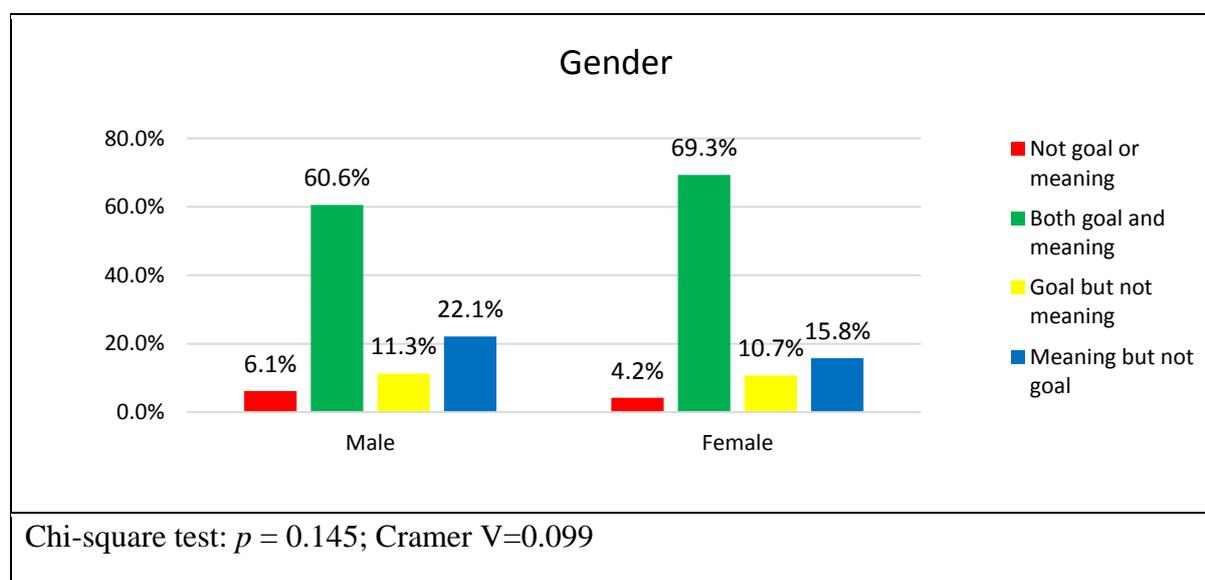


Figure 1. Alignment patterns of goals and meaning in the intrapersonal domain of life as associated with gender

Age

Figure 2 indicates a trend for the both-goal-and-meaning alignment pattern in the intrapersonal domain of life to become less frequent as people grow older, with the meaning-no-goal pattern increasing in frequency. However, since the results were not statistically significant, no reliable conclusions can be made in this regard. It is worth noting that the both-goal-and-meaning pattern appears more frequently in all age groups than any other pattern in all age groups. Similar findings were also shown for all other demographic variables.

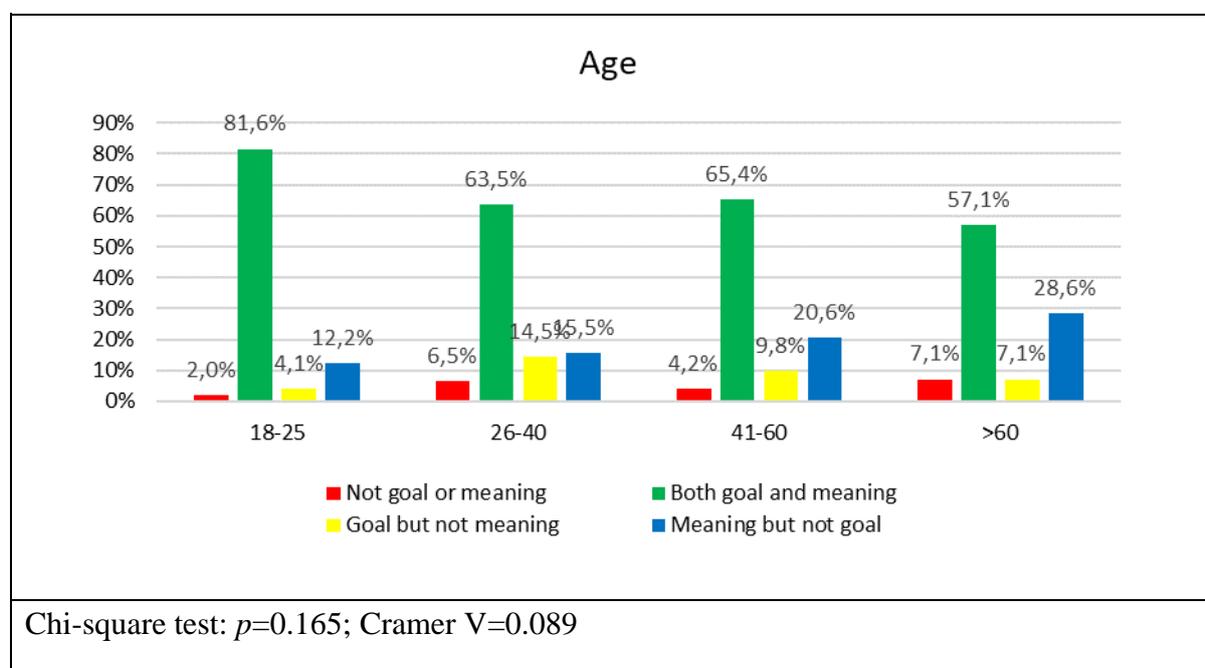


Figure 2. Alignment patterns of goals and meaning in the intrapersonal domain of life as associated with age

Standard of living

Although Figure 3 shows that mentioning the intrapersonal domain of life as both a goal and meaningful thing increases as the standard of living increases, the result was not statistically significant. Another trend that was noted is that the meaning-but-no-goal pattern decreased in

frequency as the standard of living raised, but in view thereof that the result was not statistically significant, no conclusion can be made regarding this tendency. This pattern was also visible regarding education.

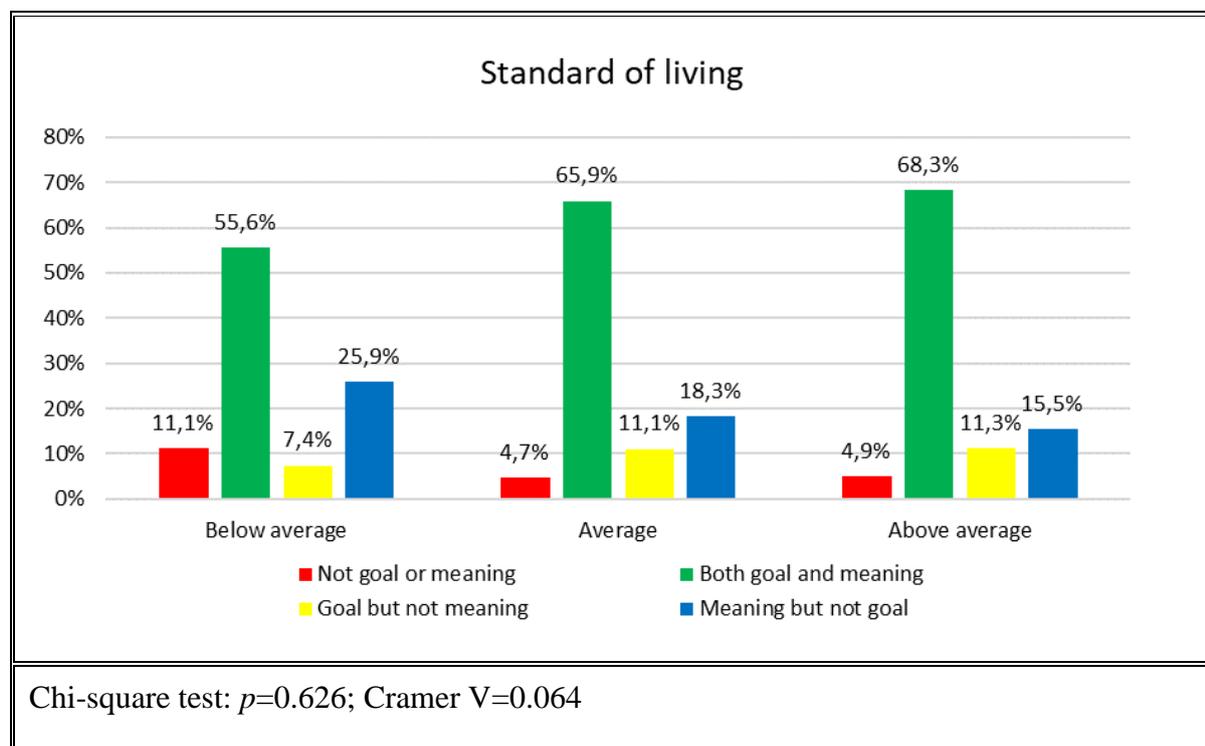


Figure 3. Alignment patterns of goals and meaning in the intrapersonal domain of life as associated with standard of living

Education

A statistically significant association between alignment patterns and demographic variables was found in the case of education (see Figure 4). However, the Cramer V of 0.118 indicates that this association is of very low practical significance. A tendency that can be noted is that, at higher levels of education, participants were more likely to mention the both-goal-and-meaning alignment pattern than participants with lower levels of education. Participants with lower levels of education were more likely to mention the intrapersonal domain as a

meaningful thing, but not a goal. The last demographic variable, of which the association with alignment patterns will be portrayed by a graph, is marital status.

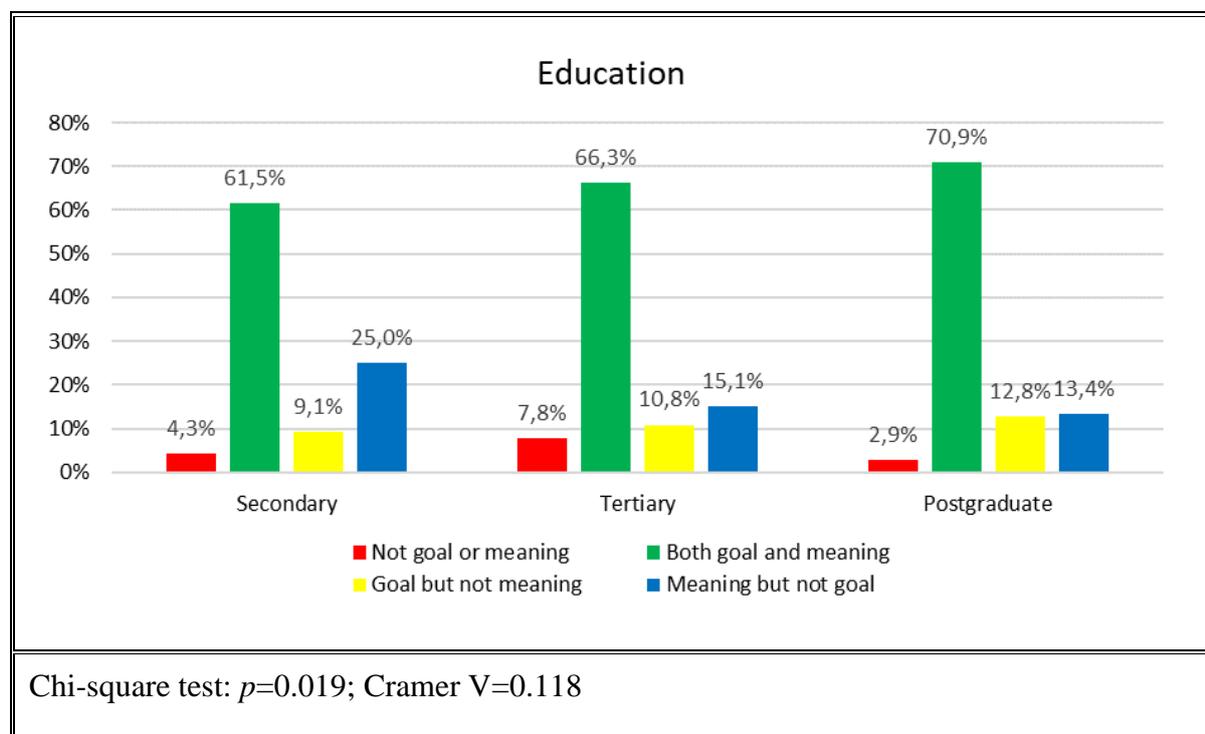


Figure 4. Alignment patterns of goals and meaning in the intrapersonal domain of life as associated with education

Marital status

Figure 5 indicates how marital status is associated with the different alignment patterns.

There were no statistically significant differences in the alignment patterns based on marital status. It is interesting to note that the participants who cohabituate had the highest prevalence of not mentioning the intrapersonal domain as either a goal or a meaningful thing. This result indicates a low concordance of having goals and meaning in comparison with the other groups; however, no conclusions can be made in this regard.

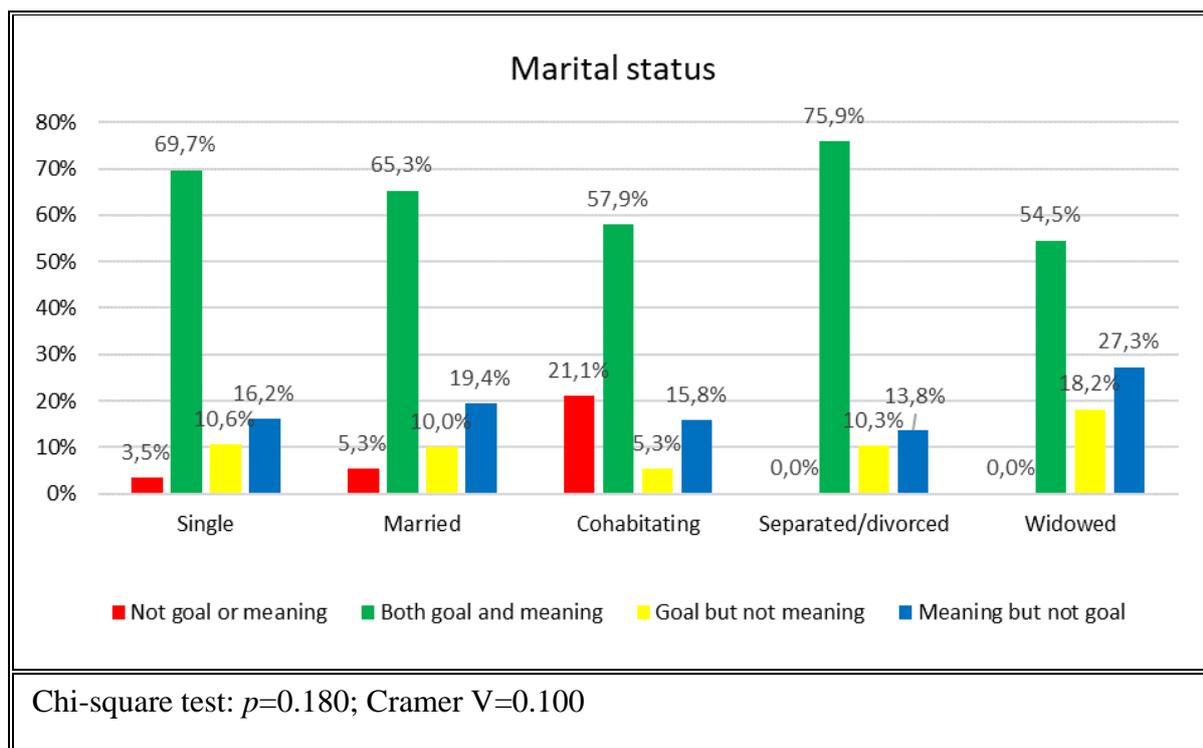


Figure 5. Alignment patterns of goals and meaning in the intrapersonal domain of life as associated with marital status

Associations between alignment patterns and well-being

One- and two-way ANOVA tests rely on the assumptions that the outcome variable is normally distributed within each group, the observations are independent, and the groups being compared have homogeneous variances (Field, 2018). In the present study, the observations were independent. However, the Shapiro-Wilk test of normality indicated that the scores on the well-being variables were not normally distributed. For the one-way ANOVAs, as conducted for evaluation of the association of alignment patterns and well-being scores, Levene's test of homogeneity of variances confirmed this assumption for all well-being variables apart from the PANAS-PA. To account for deviations from normality and homogeneity of variances, the nonparametric Kruskal-Wallis test was conducted to check if the findings of the one-way ANOVA were confirmed. In all cases, the findings were confirmed.

Table 2 indicates the significance of associations between well-being scores and goal-and-meaning alignment patterns in the intrapersonal life domain as revealed by one-way ANOVA tests. Figures A1 to A6 depicting the explored associations are included as an appendix to this manuscript (see Appendix A).

Table 2

Significance of associations between alignment patterns and well-being in the intrapersonal life domain

Scale	<i>F</i>	<i>df</i> ₁ , <i>df</i> ₂	<i>p</i>	ω^2
SWLS	1.393	3, 544	0.244	.002
PANAS-PA	0.382	3, 545	0.766	-.003
PANAS-NA	0.599	3, 545	0.616	-.002
MLQ-P	1.544	3, 544	0.200	.003
MLQ-S	0.260	3, 544	0.854	-.004
MHC-SF	0.562	3, 502	0.640	-.003

Note. SWLS = Satisfaction with Life Scale; PANAS-PA = Positive and Negative Affect Schedule – Positive Affect; PANAS-NA = Positive and Negative Affect Schedule – Negative Affect; MLQ-P = Meaning in Life Questionnaire – Presence; MLQ-S = Meaning in Life Questionnaire – Search; MHC-SF = Mental Health Continuum – Short Form

ω^2 = effect size where $\omega^2 = 0.01$ indicates a small effect, $\omega^2 = 0.06$ indicates a medium effect; and $\omega^2 = 0.14$ indicates a large effect (Field, 2017)

As shown in Table 2, no significant associations between alignment patterns and well-being, as measured by the various scales, were found. The next step was to determine the interaction between the alignment patterns and demographic variables in connection with well-being.

Interaction between alignment patterns and demographic variables in their association with well-being

The above-mentioned interactions were explored with two-way ANOVAs. In two-way ANOVAs, the assumptions are, as in the case of one-way ANOVAs, that the observations are independent, the outcome variable is normally distributed within each group, and the groups

which are being compared have homogeneous variances (Field, 2018). In the present study, all observations were independent. The Shapiro-Wilk test of normality indicated that the well-being variables were not normally distributed. For the two-way ANOVAs, the assumption of homogeneity of variances held in most, but not all, instances. No nonparametric test was available at the time the present study was conducted that could have been used to check if the findings of the parametric two-way ANOVA were confirmed. Therefore, we recognise the deviations from the assumptions as a limitation, and will need to interpret the findings with caution, especially in instances where group sizes were small.

Table 3 indicates the significance of the interaction between alignment patterns and demographic variables in association with well-being, where applicable. Only significant interactions are included as figures in the text. Nonsignificant interactions are included as Figures B1 to B25 in Appendix B.

Table 3

Interaction between alignment patterns and demographic variables in association with well-being

Scale	Main effect: Alignment pattern				Main effect: Demographic variable				Interaction effect			
	F	df ₁ , df ₂	p	ω^2	F	df ₁ , df ₂	p	ω^2	F	df ₁ , df ₂	p	ω^2
Gender												
SWLS	1.198	3, 540	.310	.001	0.444	1, 540	.506	-.001	0.268	3, 540	.718	-.003
PANAS-PA	0.380	3, 541	.768	-.003	0.695	1, 541	.405	-.001	0.398	3, 541	.961	-.005
PANAS-NA	0.653	3, 541	.581	-.002	1.378	1, 541	.241	.001	.509	3, 541	.676	-.003
MLQ-P	1.529	3, 540	.206	.003	.874	1, 540	.350	.000	.281	3, 540	.839	-.004
MLQ-S	0.307	3, 540	.820	-.004	.953	1, 540	.329	.000	.718	3, 540	.542	-.002
MHC-SF	0.449	3, 498	.718	-.003	2.779	1, 498	.096	.004	.723	3, 498	.539	-.002

Table 3 (continued).

Age Group												
SWLS	0.463	3, 532	0.708	.102	5.658	3, 532	0.001	.000	1.276	3, 532	.247	.001
PANAS-PA	0.348	3, 533	0.790	.107	6.033	3, 533	0.000	.000	1.120	3, 533	.346	.001
PANAS-NA	.340	3, 533	0.796	.097	.238	3, 533	.870	.000	.775	3, 533	.640	.000
MLQ-P	1.419	3, 532	0.236	.103	3.167	3, 532	0.024	.000	1.982	3, 532	0.039	.000
MLQ-S	1.180	3, 532	0.317	.079	1.666	3, 532	0.173	.000	0.809	3, 532	0.608	.001
MHC-SF	2.837	3, 490	0.038	.110	1.160	3, 490	0.325	.000	1.369	3, 490	0.199	.000
Standard of Living												
SWLS	3.123	3, 517	0.026	.010	23.590	3, 517	0.000	.074	2.634	3, 517	0.016	.016
PANAS-PA	1.918	3, 518	0.126	.005	1.063	3, 518	0.346	.000	1.304	3, 518	0.254	.003
PANAS-NA	1.064	3, 518	0.364	.000	5.990	3, 518	0.003	.018	0.953	3, 518	0.457	-.001
MLQ-P	4.178	3, 517	0.006	.017	5.307	3, 517	0.005	.015	2.115	3, 517	0.050	.012
MLQ-S	1.855	3, 517	0.136	.005	6.222	3, 517	0.002	.019	2.436	3, 517	0.025	.016
MHC-SF	0.508	3, 479	0.677	-.003	1.037	3, 479	0.355	.000	0.427	3, 479	0.861	-.007
Education Level												
SWLS	2.141	3, 537	0.094	.006	5.721	3, 537	0.017	.009	1.347	3, 537	0.258	.002
PANAS-PA	0.399	3, 538	0.754	-.003	4.447	3, 538	0.035	.006	1.146	3, 538	0.330	.001
PANAS-NA	0.725	3, 538	0.537	-.002	1.204	3, 538	0.273	.000	0.531	3, 538	0.661	-.003
MLQ-P	0.815	3, 537	0.486	-.001	10.069	3, 537	0.002	.016	0.468	3, 537	0.705	-.003
MLQ-S	0.460	3, 537	0.710	-.003	5.223	3, 537	0.023	.008	1.109	3, 537	0.345	.001
MHC-SF	0.088	3, 496	0.967	-.005	0.000	3, 496	0.988	-.002	1.403	3, 496	0.241	.002
Marital status												
SWLS	2.555	3, 522	0.055	.008	5.454	3, 522	0.000	.031	1.756	3, 522	0.066	.013
PANAS-PA	0.562	3, 523	0.640	-.002	1.168	3, 523	0.324	.001	1.325	3, 523	0.213	.006
PANAS-NA	2.696	3, 523	0.045	.009	3.771	3, 523	0.005	.020	1.245	3, 523	0.260	.004
MLQ-P	0.712	3, 522	0.545	-.002	0.788	3, 522	0.534	-.002	0.882	3, 522	0.550	-.002
MLQ-S	0.579	3, 522	0.629	-.002	0.886	3, 522	0.472	-.001	1.650	3, 522	0.089	.012
MHC-SF	1.558	3, 483	0.199	.003	1.663	3, 483	0.157	.005	2.371	3, 483	0.010	.027

Note. SWLS = Satisfaction with Life Scale; PANAS-PA = Positive and Negative Affect Schedule – Positive Affect; PANAS-NA = Positive and Negative Affect Schedule – Negative Affect; MLQ-P = Meaning in Life Questionnaire – Presence; MLQ-S = Meaning in Life Questionnaire – Search; MHC-SF = Mental Health Continuum – Short Form

= ω^2 (omega squared) = effect size where $\omega^2 = 0.01$ indicates a small effect, $\omega^2 = 0.06$ indicates a medium effect; and $\omega^2 = 0.14$ indicates a large effect (Field, 2017)

The results indicated in **bold** display statistical significance and those in *italics* display practical significance.

As indicated in Table 3, there were no significant associations among alignment patterns, well-being indices, and gender as demographic variable. However, in the case of age, statistically significant main effects were shown in the case of SWLS, PANAS-PA, and MLQ-P, but these were of no practical significance as shown by the ω^2 . In the case of MLQ-P, there was also a significant interaction for the association among alignment patterns, age, and MLQ-P as index of well-being with the younger group (age 18-25), with an only-goal-no-meaning pattern manifesting the lowest presence of meaning (see Figure 6), but this was of no practical significance. However, as the cells for the 18-25 age group had very low numbers in the case of the no-goal-no meaning ($n=1$), only-goal-no-meaning ($n=2$), and only-meaning-no-goal ($n=6$) categories, even the statistical significance of the interaction cannot provide reliable information. In the case of the MHC-SF, the total score alignment patterns showed a statistically significant main effect, which was also on a practical level close to a large effect size. This showed that participants with a goal-only (no meaning) pattern (when referring to the intrapersonal domain of life) having the lowest levels of well-being as measured with the MHC-SF.

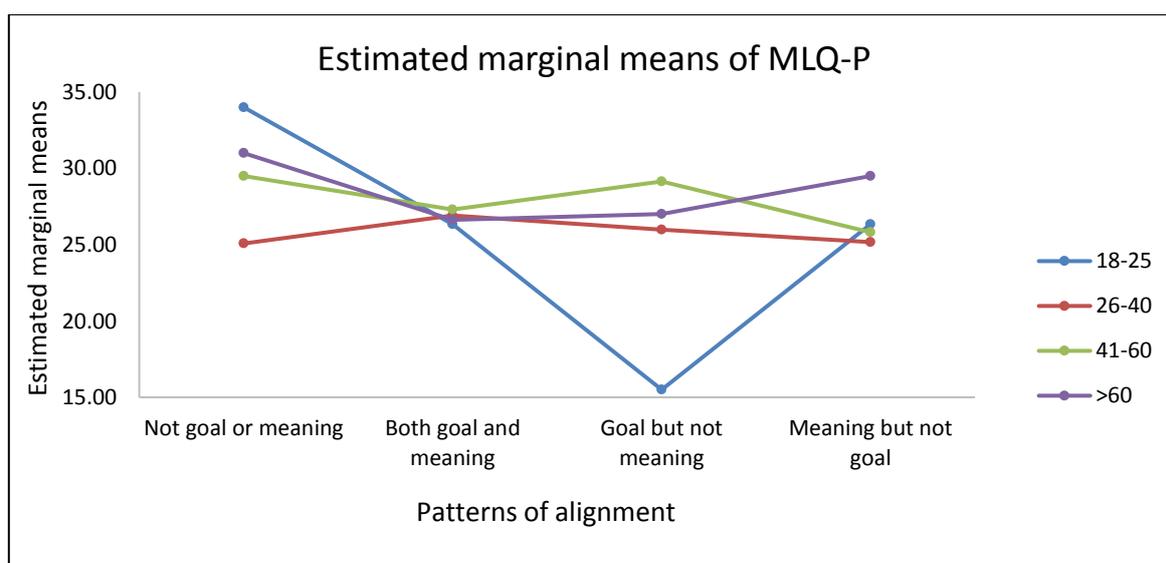


Figure 6. Interaction between the patterns of alignment and well-being as measured by the MLQ-P according to age

The next demographic variable taken into consideration was standard of living. The association of alignment patterns, demographic variables, and well-being indices showed in the case of standard of living statistically significant main effects, as well as a significant interaction effect, all being of small to medium effect size when SWLS is considered as an index of well-being. It is noteworthy that the lowest satisfaction with life was shown in the case where the intrapersonal domain was not mentioned as a goal or a meaningful thing for people, and this was particularly the case for participants in the below average income group (see Figure 7). However, as the number of people in the below average income category was relatively small, this finding should be considered with caution. In the case of the PANAS-NA, a statistically significant main effect was found with a small practically significant effect size. In view of the small number of participants in the relevant cell, this result needs to be considered with extreme caution.

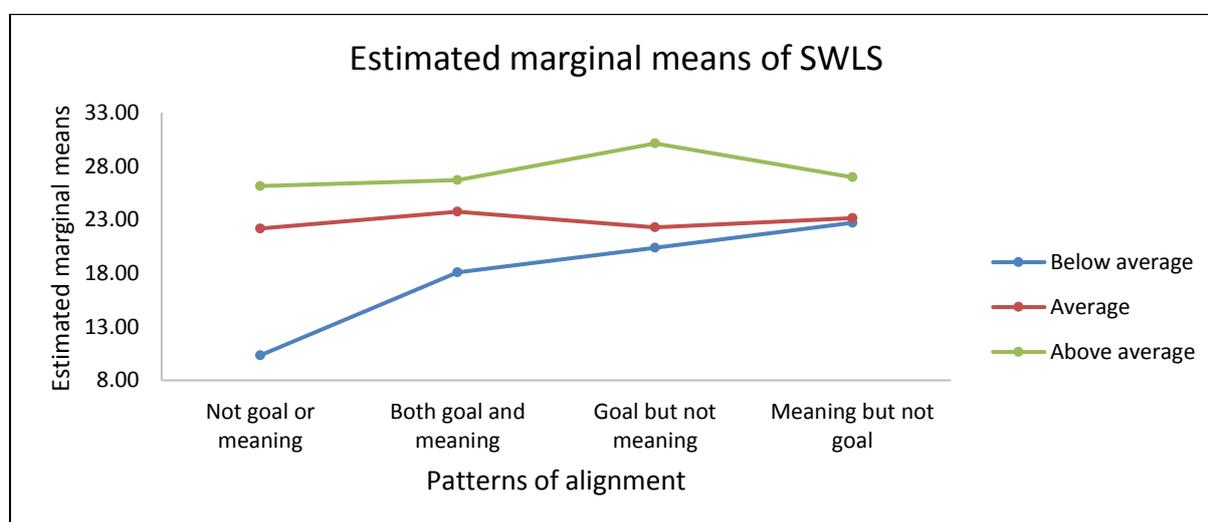


Figure 7. Interaction between the patterns of alignment and well-being as measured by the SWLS according to standard of living

With the MLQ-P as index of wellbeing, the association among alignment patterns, standard of living, and well-being showed statistically significant main effects in both

instances, as well as a statistically significant interaction with all having small effect sizes showing some practical significance (see Figure 8). Participants in the below average income groups experienced the lowest presence of meaning (as indicated by the MLQ-P) for all alignment patterns, except the case of the only-goal-no-meaning pattern, but again, in view of the small number of participants in these cells ($n=2$ to 15), this finding cannot be considered further (see Figure 8). Standard of living was also a statistically significant (small effect size) main effect with MLQ-S as index of wellbeing, and a statistically significant (with a practical significance of small effect size) interaction was found for alignment patterns, standard of living, and search for meaning (see Figure 9). The above average income group showed lower levels of search for meaning independent of alignment pattern, except that the below average income group with a goal-no meaning pattern had even a lower search for meaning, but the latter can be discarded in view of the small number of participants in the below average group.

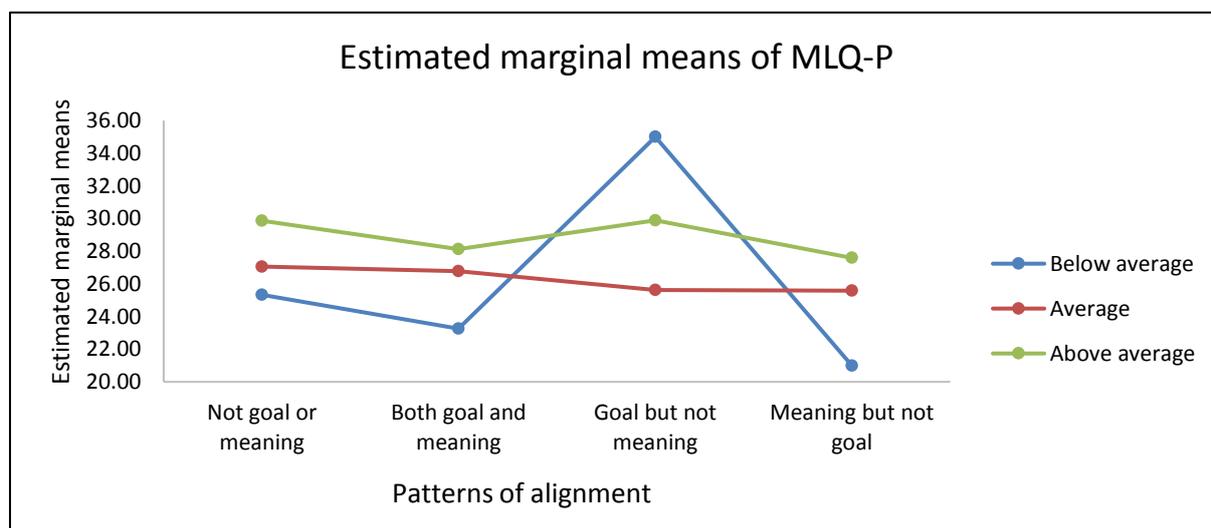


Figure 8. Interaction between the patterns of alignment and well-being as measured by MLQ-P according to standard of living

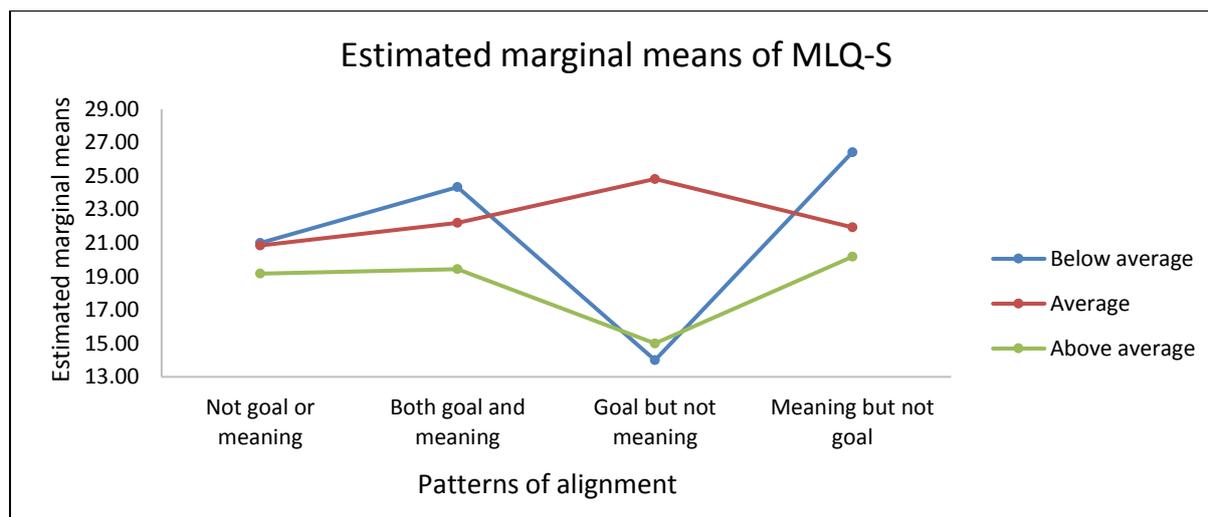


Figure 9. Interaction between the patterns of alignment and well-being as measured by MLQ-S according to standard of living

As shown in Table 3, for education level, both alignment patterns and educational level manifested statistically significant main effects in the case of SWLS as index of well-being, but these were of no practical significance. In the case of the PANAS-PA and MLQ-S, educational level manifested a statistically significant main effect, but they were not of any practical significance. However, in the case of the MLQ-P, a statistically significant, as well as a small practical significance as shown by the ω^2 main effect, was found. There was, however, no significant interaction for the association among alignment patterns, educational level, and well-being indices.

The last demographic variable specified in Table 3 was marital status. Alignment patterns and marital status both showed statistically significant main effects in the case of the SWLS ($p=0.000$, also of small practical significance for marital status, ω^2 at 0.031), and a close to statistically significant interaction ($p=.06$ – thus only significant on the 10% level of variation) with a small practical significance effect size ($\omega^2=0.013$). The PANAS-NA displayed significant main effects for both the alignment patterns ($p=0.045$) and demographic variables ($p=0.005$), but no practical significance as indicated by the ω^2 in the former

instance, and a small practical significant effect size ($\omega^2=0.02$) in the case of marital status. In the case of the MHC-SF as index of well-being, a statistically significant interaction effect was found ($p=0.01$), which was also of small practical significance with omega squared valued at 0.027.

The largest association between overall mental health, as measured by the MHC-SF and the different alignment groups, was detected for the group who indicated that they were cohabitating. The participants who were single indicated the lowest mental health when they indicated the intrapersonal domain as a goal but not a meaningful thing, while the group who cohabitated experienced the exact opposite. The group who had the most consistent mental health in all alignment patterns were the married participants ($n=340$). Apart from the single participants ($n=142$), the sample size of all the other groups was so small that caution should be applied when interpreting the results ($n=11$ to 29, see Figures 10, 11, and 12). The findings presented here will be explored in more detail in the Discussion section.

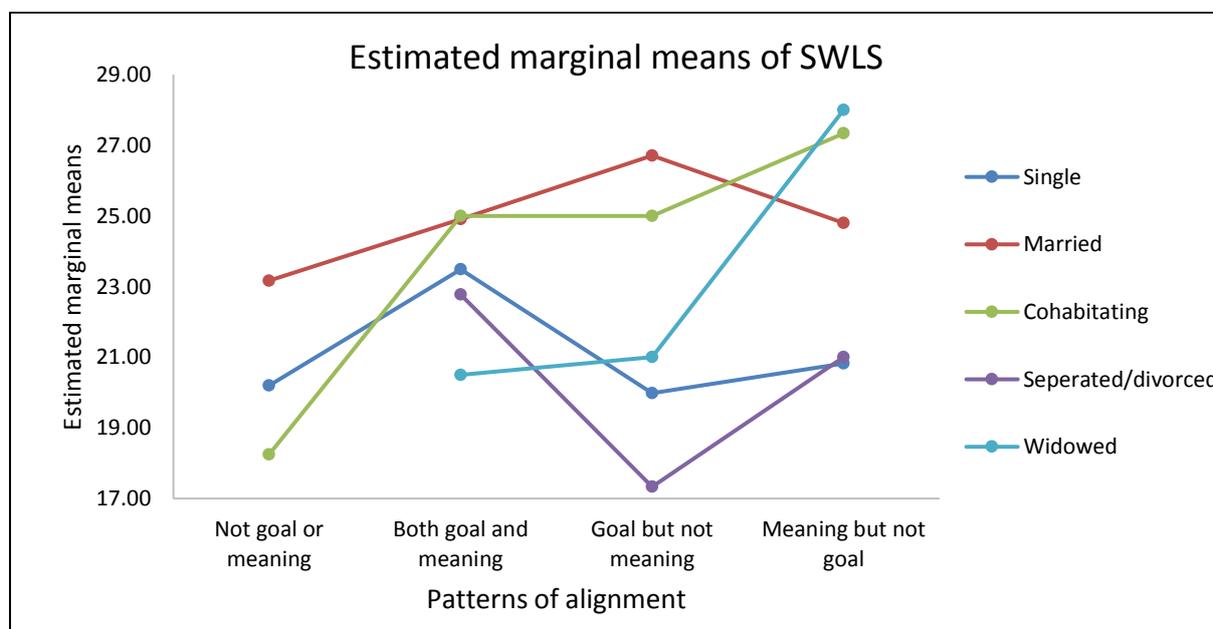


Figure 10. Interaction between the patterns of alignment and well-being as measured by SWLS according to marital status

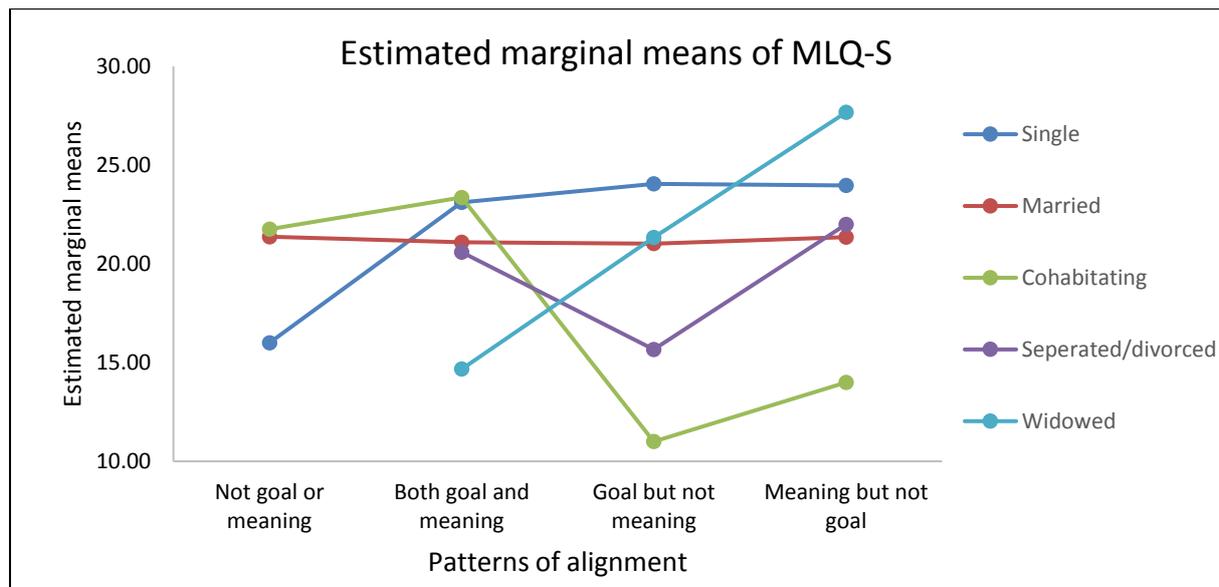


Figure 11. Interaction between the patterns of alignment and well-being as measured by MLQ-S according to marital status

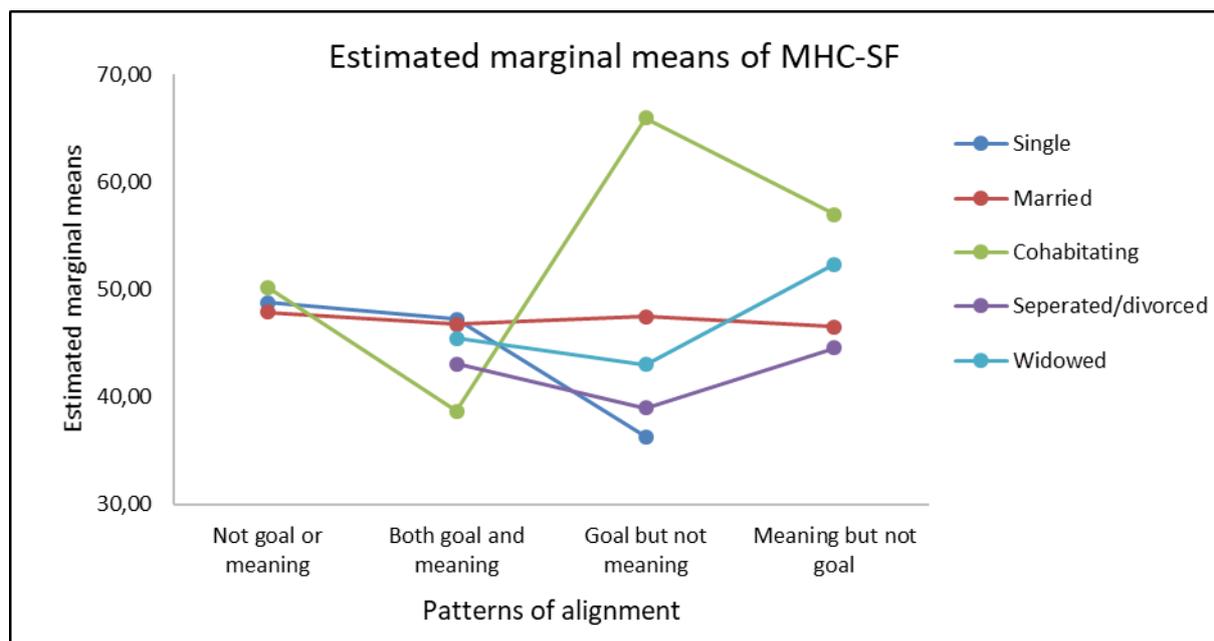


Figure 12. Interaction between the patterns of alignment and well-being as measured by MHC-SF according to marital status

Discussion

The aim of this study was to explore the patterns of alignment of valued goals and meaningful things on an intrapersonal level in association with demographic variables and

indicators of well-being. The patterns of alignment were described as: no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal.

It was found that the intrapersonal domain featured more strongly in the motivations for people's goals and meaningful things than in the goals and sources of meaning as such. This highlights the importance of the intrapsychic dimension in people's motivations for their actions and values. Associations were detected between alignment and some demographic variables, and the interaction between these factors in their association with well-being was also significant in some cases. In particular, some statistically significant results or clear trends were detected for age, level of education, and standard of living. The specific findings will now be discussed in more depth.

Frequencies of goals and meaning

It is clear from the results that the intrapersonal domain was an important consideration in participants' selection of important goals and meaningful things in their lives, and that goals and meaning dovetail to a large extent in this domain of life, as highlighted by Park et al. (2017), Steffel and Oppenheimer (2009) and Wilson et al. (2018). This could be an indication of the intrapersonal harmony between goals and meaning for most ordinary people, such as the participants of this study. Table 1 indicates that although participants specified facets related to the intrapersonal domain as goals or sources of meaning, the intrapersonal domain was far more frequently mentioned as the reason for goals or for sources of meaning. In answering similar questions, the majority of the participants in a study by Delle Fave, Brdar, et al. (2013) specified the intrapersonal life domain as the most important underlying source of meaning. Although it seems repetitious to name sources of meaning as the basis for their meaningfulness, it is understandable because people use their intrapersonal considerations as a compass to pursue goals in order to find meaning in their lives, or to select goals in line with what is meaningful to them. This is in line with Sheldon and Elliot's (1999) self-

concordance model, whereby people put more enduring effort in the pursuit of self-concordant goals that are directly integrated with the “self”.

Associations between alignment patterns and demographic variables

The demographic variables that were considered were gender, age, standard of living, education, and marital status. Although the results regarding gender differences was insignificant, the alignment of goals and meaning decreased as participants got older.

Although not significant, it is interesting to note that the intra-personal life domain was more frequently mentioned as a source of meaning, but not a goal, as participants got older. While the search for meaning remains a lifelong stable fundamental element, Işık and Üzbe (2015) found that the intensity may vary according to the developmental stage. The developmental theory by Erikson (1968) emphasises that a normal developmental phase for young adults involves exploring life and their own potential, goal directedness, and search for meaning. The results of this study may be in line with Erikson’s (1968) developmental theory that identifies intrapsychic developmental tasks such as identity formation for younger people (which may be reflected in the goals set by people in this group), while other developmental tasks such as the establishment of integrity are prioritised in older age groups (as reflected in their experience of meaning). The intrapersonal dimension may, however, still be reflected in older people’s life meaning, as echoed in Erikson’s (1968) description of the most important question in the last developmental phase, starting at age 65, namely “Did I live a meaningful life?”

According to Bérenger and Verdier-Chouchane (2007) standard of living can be indicated by standard of health and education, as well as material well-being. To build on the discussion of the aforementioned demographic variable, namely age, Grouden and Jose (2014) in a study found that financial stability, which is associated with standard of living, increases meaning in older people’s lives because it brings security and assurance of financial

provision during the life stage where they might need more medical care and assistance. This could also explain why participants with a low standard of living revealed higher goal pursuit and less meaning on an intrapersonal level. From the results of this present study, it is evident that the alignment of goals and meaning on an intrapersonal level increased consistently with the standard of living.

It may be that people with lower levels of education and standard of living are more preoccupied with satisfying basic (physical) needs (Maslow, 1970) in the goals that they set for themselves. This takes the focus away from intrapsychic aspects in their goals; however, intrapsychic dimensions still feature strongly in their life meaning. With basic needs more likely to be met for people with higher levels of education and standard of living, they have the capacity to focus on the intrapersonal domain in their goals as well as their meaning.

Associations between alignment patterns and well-being

According to the self-concordance model (Sheldon & Elliot, 1999), people will put more sustained effort in achieving goals that are consistent with their interests and core values (things that give them meaning), directing goal-attainment and subsequently leading to increased well-being. The results of this study, however, found no significant associations of alignment patterns with well-being indices, indicating that the aligned goals and meaning pattern did not stand out as being associated with higher levels of well-being. None of the well-being scales (namely SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-S, and MHC-SF) indicated significant associations, as was expected according to the self-concordance model. As some demographic variables seemed to be linked with alignment patterns in some regards, as discussed above, it was meaningful to further explore the possible interactions among patterns of alignment, demographic variables, and indicators of well-being for a deeper understanding.

Interaction between alignment patterns and demographic variables in their association with well-being

Statistically significant main effects were shown among alignment patterns, age, and well-being indices. Specifically, the younger group (age 18-25) with an only-goal-no-meaning showed the lowest presence of meaning. It was, however, interesting to note that nearly all participants (regardless of their age) showed nearly the same level of well-being, as indicated by the MLQ-P, when they had the both-goal-and-meaning alignment pattern.

Without taking alignment patterns into consideration, the association between age and well-being has been studied extensively (Horley & Lavery, 1995; Keyes & Waterman, 2003; Meyers & Diener, 1995), but findings differ. Among Western samples, it was found that well-being is not influenced by age (Meyers & Diener, 1995), while Horley and Lavery (1995) found that well-being steadily increased with age. In the present study, the latter finding is supported, but it is an open question whether the result will be similar in relatively more collectivistic cultures.

Related with age, Grouden and Jose (2014) found that younger individuals were more likely to find meaning in personal growth (i.e., on the intrapersonal level), while older people would rather find meaning in standard of living and community-based activities. Related to the older people, it would most likely be linked to well-being, based on the security of provision for possible medical needs and support in old age. Something like winning the lottery could be linked to financial gain, increasing the standard of living, but even studies regarding the influence of winning the lottery on well-being had contradicting results (Brickman et al., 1978; Gardner & Oswald, 2007). In a study by Oishi, Diener, Lucas, and Suh (1999), it was found that people in poorer nations consider their financial income more important than wealthier nations. Consistent with Maslow's (1970) need-gratification theory, satisfaction of higher needs, as linked to the intrapersonal domain, tend to be strong

predictors of life satisfaction in affluent nations. Therefore, it makes sense that standard of living and the link with alignment patterns on intrapersonal domain is associated with satisfaction with life. Although the South African study by Khumalo et al. (2012) did not focus on goals and meaning as such, it was found that poverty and lack of education negatively impacted on the well-being of participants.

In the past, it was mostly generalised that being married benefits mental well-being (Khumalo et al., 2012), but the population that is cohabitating is increasing rapidly; therefore, the question can be asked whether marital status should not rather be evaluated on a continuum of social attachment by two partners (Wright & Brown, 2017). According to the self-determination theory (Deci & Ryan, 2000), people have three basic psychological needs, namely autonomy, competence, and relatedness. Living together could also be an answer to fulfilling two of the three identified needs, namely autonomy (one's behaviour is not pressured, but rather self-selected) – in other words, not conforming to society's expectation of marriage – and relatedness, which results in the feeling of being in harmony with or connected to others. In a South-African study by Khumalo et al., (2012), it was found that being married was associated with better psychological well-being and increased mental health.

Conclusion

The intrapersonal domain featured more strongly in the motivations for people's goals and sources of meaning than in the goals and sources of meaning as such. This highlights the importance of the intrapsychic dimension in people's motivations for their actions and values, which lies at the basis of the self-concordance model (Sheldon & Elliot, 1999) and the self-determination theory (Deci & Ryan, 2000). Sheldon et al. (2004) contended that the feeling of owning up to one's actions (meaning goals and actions are in line with what is important for the self) is probably of great value or importance for all people and their subjective well-

being. Associations were detected between alignment patterns and some demographic variables, and the interactions between these factors and well-being indicators were only significant in some instances. In particular, some statistically significant results or clear trends were detected for age, level of education, and standard of living. This indicates that a person's developmental stage and context are important when trying to understand the patterns of alignment between goals and meaning in the intrapersonal domain. Also, it may be important to take these factors into consideration when developing and evaluating interventions that focus on goals and meaning, as a one-size-fits-all approach may not be suitable to or effective in all contexts. The present findings thus provide only qualified support for the self-concordance model of Sheldon and Elliot (1999) as far as alignment, as operationalised in this study, was present in the intrapersonal domain of life and well-being measured with the selected scales.

Limitations, recommendations, and future research

Due to the limitation of the convenience sample, the results of the study cannot be generalised. Although a relatively large sample was involved ($N=585$), the subgroups were in some instances small and therefore the results can only be interpreted with caution. Another limitation is that participants in the present study originated mostly from an urban and culturally individualistic background. Further research needs to be conducted in specific, more collectivistic groups. It is, therefore, recommended that future research will involve larger, randomly selected samples from different cultural backgrounds. Sheldon et al. (2004) explored self-concordance and subjective well-being in three Eastern, relatively collectivist countries in comparison to a Western group, and found differences in the degree of self-concordance among the three collectivist groups. As African collectivism may differ from that in the East (cf. Wissing & Temane, 2008), further research is needed specifically in an African context.

It is suggested that the results of this study, with regard to the possible role of demographic variables, be taken into consideration when developing and implementing well-being interventions, and that the well-being measurements that indicated significant interactions be used in order to measure the outcomes of such well-being interventions. Interventions to promote a stronger alignment between goals and values / meaningful things may specifically promote eudaimonic well-being, as implied by Sheldon, Corcoran, and Prentice (2018). This is particularly also the case when subjective well-being (e.g., as measured with the SWLS) is taken as an outcome measure, as suggested by Sheldon's (2017) Eudaimonic Activity Model.

Acknowledgements

This research was financially supported in part by the National Research Foundation of South Africa (NRF) (grant numbers: 91557 and 106050). The grantholder acknowledges that opinions, findings, conclusions, and recommendations expressed are those of the authors and that the NRF accepts no liability whatsoever in this regard.

References

- Antonovsky, A. (1993). The structure and properties of the Sense of Coherence Scale. *Social science and medicine*, 36, 725-733.
- Baumeister, R. F. (1991). *Meanings of life*. New York, NY: Guilford Press.
- Baumeister, R. F. (2016). Toward a general theory of motivation: Problems, challenges, opportunities, and the big picture. *Motivation and emotion*, 40(1), 1-10.
doi:10.1007/s11031-015-9521-y
- Baumeister, R. F., & Landau, M. J. (2018). Finding the meaning of meaning: Emerging insights on four grand questions. *Review of general psychology*, 22(1), 1-10.
doi:10.1037/gpr0000145
- Baumeister, R. F., Vohs, K. D., Aaker, J. L., & Garbinsky, E. N. (2013). Some key differences between a happy life and a meaningful life. *The Journal of Positive Psychology*, 8, 505-516. doi:10.1080/17439760.2013.830764
- Baumeister, R., Vohs, K., & Tice, D. (2007). The strength model of self-control. *Current directions in psychological science*, 16(6), 351-355. doi:10.1111/j.1467-8721.2007.00534.x
- Baumgardner, S. R., & Crothers, M. K. (2010). *Positive psychology*. New York, NY: Pearson Prentice-Hall.
- Bérenger, V., & Verdier-Chouchane, A. (2007). Multidimensional measures of well-being: standard of living and quality of life across countries. *World development*, 35(7), 1259-1276. doi.org:10.1016/j.worlddev.2006.10.011
- Brazeau, H., & Davis, C. G. (2018). Hope and psychological health and well-being following spinal cord injury. *Rehabilitation psychology*, 63(2), 258-266. doi:10.1037/rep0000209

- Cantor, N., & Sanderson, C. A. (2003). Life task participation and well-being: The importance of taking part in daily life. *Well-being: Foundations of hedonic psychology*, 230-242.
- Carney, A. K., & Patrick, J. H. (2017). Time for a change: Temporal perspectives and health goals. *Personality and individual differences*, 109, 220-224.
doi:10.1016/j.paid.2017.01.015
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process View. *Psychological review*, 97(1), 19-35. doi:10.1037/0033-295X.97.1.19
- Creswell, J., & Plano Clark, V. (2011). *Designing and conducting mixed methods research*. Los Angeles: SAGE.
- Cummins, R. A. (1996). The domains of life satisfaction: An attempt to order chaos. *Social indicators research*, 38 (3), 303-328.
- David, M., & Sutton, C. D. (2004). *Social research: The basics*. Sage: London, UK
- Davids, E. L., Roman, N. V., & Kerchhoff, L. J. (2017). Adolescent goals and aspirations in search of psychological well-being: from the perspective of self-determination theory. *South African Journal of Psychology*, 47(1), 121–132. doi:10.1177/0081246316653744
- Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68-78.
doi:10.1037/0003-066X.55.1.68
- Deci, E. L., & Ryan, R. M. (2008a). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9(1), 1-11. doi:10.1007/s10902-006-9018-1

- Deci, E. L., & Ryan, R. M. (2008b). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology, 49*(3), 182-185.
doi:10.1037/a0012801
- Delle Fave, A. D., Brdar, I., Freire, T., Vella-Brodrick, D. A., and Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness. *Social indicators research, 100*(2), 158-207. doi:10.1007/s11205-010-9632-5
- Delle Fave, A. D., Brdar, I., Wissing, M. P., & Vella-Brodrick, D. A. (2013). Sources and motives for personal meaning in adulthood. *Journal of Positive Psychology, 8*(6), 517-529. doi:10.1080/17439760.2013.830761
- Delle Fave, A. D., Wissing, M. P., Brdar, I., Vella-Brodrick, D. A., & Freire, T. (2013). Cross-cultural perceptions of meaning and goals in adulthood: Their roots and relation with happiness. In A. Waterman (Ed.), *The best within us: Positive psychology perspectives on eudaimonic functioning* (pp. 227-248). Washington DC: American Psychological Association.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist, 55*(1), 34.
- Diener, E. (2009). Subjective well-being. In *The science of well-being* (pp. 11-58). Springer, Dordrecht.
- Diener, E. (2012). New findings and future directions for subjective well-being research. *American psychologist, 67*(8), 590-597. doi:10.1037/a0029541
- Diener, E., & Ryan, K. (2009). Subjective well-being: A general overview. *South African Journal of Psychology, 39*(4), 391-406. doi:10.1177/008124630903900402
- Diener, E., Emmons, R., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75. doi:10.1207/s15327752jpa4901_13

- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual review of psychology*, *54*(1), 403-425.
- Du Plessis, G. A., & Guse, T. (2017). Validation of the scale of positive and negative experience in a South African student sample. *South African Journal of Psychology*, *47*(2), 184-197. doi:10.1177/0081246316654328
- Du Toit, M. M., Wissing, M. P., & Khumalo, I. P. (2014). Positive relationships. In *Towards flourishing. Contextualising positive psychology* (pp. 175-219). Pretoria: Van Schaik.
- Emmons, R. A. (2003). *Personal goals, life meaning, and virtue: Wellsprings of a positive life*. In C. L. M. Keyes, & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived* (pp. 105-128). Washington DC: American Psychological Association. doi:10.1037/10594-005
- Emmons, R. A. (2005). Striving for the sacred: Personal goals, life meaning, and religion. *Journal of Social Issues*, *61*, 731-745. doi:10.1111/j.1540-4560.2005.00429
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Ferguson, M. J., & Bargh, J. A. (2004). Liking is for doing: The effects of goal pursuit on automatic evaluation. *Journal of Personality and Social Psychology*, *87*, 557-572.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage: London, UK.
- Fitzsimons, G. M., & Shah, J. Y. (2008). How goal instrumentality shapes relationship evaluations. *Journal of Personality and Social Psychology*, *95*, 319-337.
- Frankl, V. E. (1963/1985). *Man's search for meaning*. New York, NY: Pocket Books.
- Frankl, V. E. (1969). *The will to meaning: Foundation and applications of logotherapy*. New York, NY: New American Library.

- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American psychologist*, *56*(3), 218.
- Freund, A. M., Hennecke, M., & Riediger, M. (2010). Age-related differences in outcome and process goal focus. *European Journal of Developmental Psychology*, *7*, 198-222.
doi:10.1080/17405620801969585
- Gardner, J., & Oswald, A. J. (2007). Money and mental well-being: A longitudinal study of medium-sized lottery wins. *Journal of Health Economics*, *26*, 49-60.
doi:10.1016/j.jhealeco.2006.08.004
- Gebhardt, W. (2006). Contextualizing health behaviors: The role of personal goals. In *Self-regulation in health behaviour* (pp. 27-44). Chichester, UK: John Wiley & Sons.
- Goschke, T., & Kuhl, J. (1993). Representation of intentions: Persisting activation in memory. *Journal of Experimental Psychology: Learning, memory, and cognition*, *19*, 1211-1226.
- Grouden, M. E., & Jose, P. E. (2014). How do sources of meaning in life vary according to demographic factors? *New Zealand Journal of Psychology*, *43*(3), 29-38.
- Guba, E. (1981). ERIC/ECTJ Annual review paper: Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational communication and technology*, *29*(2), 75-91.
- Hennecke M., Brandstätter V. (2017). Means, ends, and happiness: The role of goals for subjective well-being. In M. Robinson, M. Eid (Eds.), *The happy mind: Cognitive contributions to well-being*. Springer, Cham.
- Hudson, N. W., & Roberts, B. W. (2014). Goals to change personality traits: Concurrent links between personality traits, daily behavior, and goals to change oneself. *Journal of Research in Personality*, *53*, 68-83.
- Ikeda, K., Castel, A. D., & Murayama, K. (2015). Mastery-approach goals eliminate retrieval-induced forgetting: The role of achievement goals in memory inhibition.

Personality and social psychology bulletin, 41(5), 687-695.

doi:10.1177/0146167215575730

Işık, Ş., & Üzbe, N. (2015). Personality traits and positive/negative affects: An analysis of meaning in life among adults. *Educational sciences: Theory & practice*, 15(3), 587-595. doi:10.12738/estp.2015.3.2436

Kaftan, O. J., & Freund, A. M. (2018). The way is the goal: The role of goal focus for successful goal pursuit and subjective well-being. *Handbook of well-being*, 1-19. doi:10.5167/uzh-147437

Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work : A century of progress motivation related to work : A century of progress, 102(May), 338-355. doi:10.1037/apl0000133

Kasser, T., Rosenblum, K. L., Sameroff, A. J., Deci, E. L., Niemiec, C. P., Ryan, R. M., . . . Hawks, S. (2013). Changes in materialism, changes in psychological well-being: Evidence from three longitudinal studies and an intervention experiment. *Motivation and emotion*, 38, 1-22.

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, 61, 121-140. doi:10.2307/2787065

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Research*, 43, 207-222. doi:10.2307/3090197

Keyes, C. L. M. (2009). Brief description of the mental health continuum short form (MHC-SF). *American Journal of Public Health*, 100(12), 2366-71. doi:10.2105/AJPH.2010.192245

Keyes, C. L. M., & Waterman, M. B. (2003). Dimensions of well-being and mental health in adulthood. In M. C. Bornstein, L. Davidson, C. L. M. Keyes, & K. A. Moore (Eds.),

- Well-being: Positive development across the life course* (pp. 477-497). Mahwah, NJ: Laurence Erlbaum Associates.
- Keyes, C. L. M., Wissing, M. P., Potgieter, J. C., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum–Short Form (MHC–SF) in Setswana-Speaking South Africans. *Clinical psychology and psychotherapy, 15*, 181-192.
- Khumalo, I. P., Temane, Q. M., & Wissing, M. P. (2012). Socio-demographic variables, general psychological well-being and the Mental Health Continuum in an African Context. *Social indicators research, 105*(3), 419-442. doi:10.1007/s11205-010-9777-2
- King, L. A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin, 27*, 798-807.
- Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis, MN: University of Minnesota Press.
- Klinger, E. (2012). *The search for meaning in evolutionary goal-theory perspective*. In *The human quest for meaning: Theories, research, and applications* (pp. 23-55). New York: Routledge/Taylor & Frances Group.
- Klug, H., & Maier, G. (2015). Linking goal progress and subjective well-being: A meta-analysis. *Journal of Happiness, 16*(1), 37–65. doi:10.1007/s10902-013-9493-0
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology, 67*(1), 99-110. doi:10.1002/jclp.20741
- Landau, M. J. (2018). Using metaphor to find meaning in life. *Review of general psychology, 22*(1), 62-72. doi:10.1037/gpr0000105

- Lee, T. W., Locke, E. A., & Latham, G. P. (1989). Goal setting theory and job performance. In L. A. Pervin (Ed.), *Goal concepts in personality and social psychology* (pp. 291-326). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Liversage, C. (2015). *Goals and levels of psycho-social well-being: An exploratory study* (Masters dissertation). Retrieved from <https://repository.nwu.ac.za/handle/10394/18965>
- Lomas, T., & Ivtzan, I. (2016). Second wave positive psychology: Exploring the positive–negative dialectics of wellbeing. *Journal of Happiness Studies, 17*(4), 1753-1768. doi:10.1007/s10902-015-9668-y
- Lyubomirsky, S., King, L. A., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803-855.
- Maes, S., & Karoly, P. (2005). Self-regulation assessment and intervention in physical health and illness: A review. *Applied psychology, 54*(2), 267-299. doi:10.1111/j.1464-0597.2005.00210.x
- Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology, 11*(5), 531-545. doi:10.1080/17439760.2015.1137623
- Maslow, A. H. (1970). *Motivation and personality*. New York: Harper & Row.
- Monzani, D., Steca, P., Greco, A., D'Addario, M., Pancani, L., & Cappelletti, E. (2015). Effective pursuit of personal goals: The fostering effect of dispositional optimism on goal commitment and goal progress. *Personality and individual differences, 82*, 203-214. doi:10.1016/j.paid.2015.03.019
- Noori, S., & Narafshan, M. H. (2018). Promoting goal setting: An experimental study of positive psychology in an EFL Context. *World Journal of Educational Research, 5*(2), 144-158. doi:10.22158/wjer.v5n2p144
- Oishi, S., Diener, E. F., Lucas, R. E., Suh, E. M. (1999). Personality and social psychology

bulletin cross-cultural variations in predictors of life satisfaction: Perspectives from needs and values. *Personality and Social Psychology Bulletin*, 25(8), 980-990.

doi:10.1177/01461672992511006

Pallant, J. (2013). *SPSS survival manual*. McGraw-Hill Education (UK).

Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*,

136, 257-301. doi:10.1037/a0018301

Park, D., Tsukayama, E., Goodwin, G. P., Patrick, S., & Duckworth, A. L. (2017). A tripartite taxonomy of character: Evidence for intrapersonal, interpersonal, and intellectual competencies in children. *Contemporary educational psychology*, 48, 16-27.

doi:10.1016/j.cedpsych.2016.08.001

Perugini, L., De la Iglesia, G., Solano, A. J., & Keyes, C. L. M. (2017). The mental health continuum—short form (MHC–SF) in the argentinean context: Confirmatory factor analysis and measurement invariance. *Europe's Journal of Psychology*, 13(1), 93-108.

doi:10.5964/ejop.v13i1.1163

Peterson, C. (2013). *Pursuing the good life: 100 reflections in positive psychology*. New York: Oxford University Press.

Plano Clark, V. L. (2017). Mixed methods research. *The Journal of Positive Psychology*, 12(3), 305-306. doi:10.1080/17439760.2016.1262619

Roman, N. V., Davids, E. L., Moyo, A., Schilder, L., Lacante, M., & Lens, W. (2015).

Parenting styles and psychological needs influences on adolescent life goals and aspirations in a South African setting. *Journal of Psychology in Africa*, 25 (4), 305-312.

- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1069-1081.
- Schlegel, R. J., Hicks, J. A., Arndt, J., & King, L. A. (2009). Thine own self: True self-concept accessibility and meaning in life. *Journal of Personality and Social Psychology*, *96*(2), 473-490. doi:10.1037/a0014060
- Schmuck, P., Kasser, T., & Ryan, R. M. (2000). Intrinsic and extrinsic goals: Their structure and relationship to well-being in German and US college students. *Social indicators research*, *50*(2), 225-241. doi:10.1023/A:1007084005278
- Schutte, L., Wissing, M. P., Ellis, S. M., Jose, P. E., & Vella-Brodrick, D. A. (2016). Rasch analysis of the Meaning in Life Questionnaire among adults from South Africa, Australia, and New Zealand. *Health and quality of life outcomes*, *14*(1), 1-15. doi:10.1186/s12955-016-0414-x
- Seaton, C. L., & Beaumont, S. L. (2015). Pursuing the good life: A short-term follow-up study of the role of positive/negative emotions and ego-resilience in personal goal striving and eudaimonic well-being. *Motivation and emotion*, *39*(5), 813-826. doi:10.1007/s11031-015-9493-y
- Sedikides, C., Cheung, W.-Y., Wildschut, T., Hepper, E. G., Baldursson, E., & Pedersen, B. (2018). Nostalgia motivates pursuit of important goals by increasing meaning in life. *European Journal of Social Psychology*, *48*: 209-216. doi:10.1002/ejsp.2318
- Sheldon, K. M. (2002). The self-concordance model of healthy goal striving: When personal goals correctly represent the person. *Handbook of self-determination research*, 65-86.
- Sheldon, K. M. (2017, March). *Understanding the good life: Eudaimonic living involves well-doing, not well-being*. Paper presented at the 19th Sydney Symposium of Social

Psychology, Sydney. Chapter retrieved from

<http://www.sydneysymposium.unsw.edu.au/2017/chapters/SheldonSSSP2017.pdf>

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482-497. doi:10.1037/0022-3514.76.3.482

Sheldon, K. M., & Houser-Marko, L. (2001). Self-concordance, goal-attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology*, 80, 152-165.

Sheldon, K. M., Corcoran, M. & Prentice, M. J (2018). Pursuing eudaimonic functioning versus pursuing hedonic well-being: The first goal succeeds in its aim, whereas the second does not. *Journal of Happiness Studies*, 1-15. doi:10.1007/s10902-018-9980-4

Sheldon, K. M., Elliot, A. J., Ryan, R. M., Chirkov, V., Kim, Y., Wu, C., ... & Sun, Z. (2004). Self-concordance and subjective well-being in four cultures. *Journal of Cross-Cultural Psychology*, 35(2), 209-223.

Sheldon, K. M., Kasser, T., Smith, K., & Share, T. (2002). Personal goals and psychological growth: Testing an intervention to enhance goal attainment and personality integration. *Journal of Personality*, 70, 5-31. doi:10.1111/1467-6494.00176

Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The independent effects of goal contents and motives on well-being: It's both what you pursue and why you pursue it. *Personality & Social Psychology Bulletin*, 30(4), 475-86.
doi:10.1177/0146167203261883

Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, 18(2), 122-139. doi:10.1521/scpq.18.2.122.21854

Steffel, M., & Oppenheimer, D. M. (2009). Happy by what standard? The role of

- interpersonal and intrapersonal comparisons in ratings of happiness. *Social indicators research*, 92(1), 69-79. doi:10.1007/s11205-008-9289-5
- Steger, M. F. (2011). Meaning in life: Catch basin of consciousness. Invited lecture at the North-West University, Potchefstroom.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80-93. doi:10.1037/0022-0167.53.1.80
- Temane, L., Khumalo, I. P., & Wissing, M. P. (2014). Validation of the Meaning in Life questionnaire in an African context, *Journal of Psychology in Africa*, 24: 1, 51-60.
- Van Tongeren, D. R., DeWall, C. N., Green, J. D., Cairo, A. H., Davis, D. E., & Hook, J. N. (2018). Self-regulation facilitates meaning in life. *Review of general psychology*, 22(1), 95-106. doi:10.1037/gpr0000121
- Vera-Villarroel, P., Urzúa, A., Jaime, D., Contreras, D., Zych, I., Celis-Atenas, K., ... Lillo, S. (2017). Positive and Negative Affect Schedule (PANAS): Psychometric properties and discriminative capacity in several Chilean samples. *Evaluation & the health professions*. doi:10.1177/0163278717745344
- Vinje, H. F., Langeland, E., & Bull, T. (2016). Aaron Antonovsky's development of salutogenesis, 1979 to 1994. In M. B. Mittelmark, S. Sagy, M. Eriksson, G. F. Bauer, J. M. Pelikan, B. Lindström & G. A. Espnes (Eds.), *The handbook of salutogenesis*. Cham, Switzerland: Springer International Publishing AG.
- Vogt, J., De Houwer, J., Moors, A., Van Damme, S., & Crombez, G. (2010). The automatic orienting of attention to goal-relevant stimuli. *Acta Psychologica*, 134, 61-69.

- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, *64*, 678-691.
- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54* (6), 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Wilson, A., Wissing, M. P., Ndimba, L., & Somhlaba, N. Z. (2018). Representations of hope, goals, and meaning from lay person's perspectives in two African contexts. *Journal of Humanistic Psychology*. doi:10.1177/0022167818785070
- Wissing, M. P. (2014). A path towards flourishing. In M. Wissing, J. Potgieter, T. Guse, T. Khumalo, & L. Nel (Eds.), *Towards flourishing* (pp. 3-16). Pretoria: Van Schaik Publishers.
- Wissing, M. P., & Delle Fave, A. (2013, May). *Meaning and relational well-being: Towards a model*. Paper presented at the Second Conference on Positive Psychology (CPPC) in Brno, Czech Republic.
- Wissing, M. P., & Temane, Q. M (2008). The structure of psychological well-being in cultural context: Towards a hierarchical model of psychological health. *Journal of Psychology in Africa*, *18*(1), 45-56.
- Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology / Suid-Afrikaanse Tydskrif vir Sielkunde*, *32*, 32-44.
- Wissing, M. P., Carlquist, E., Martos, T., & Schutte, L. (2017, September). Do goals walk the talk of meaning in well-being? Presentation in symposium: In their own voices: *Lay people's perceptions and dimensions of well-being facets across world regions*. Chairs: Ingrid Brdar (Croatia) & Marié Wissing (SA), Discussant Despina Moraitou (Greece),

ISQOLS2017 Annual Conference on “Quality of Life: Towards a better Society”,
Innsbruck, Austria.

Wong, P. T. (2013). Meaning management theory and death acceptance. In *Existential and spiritual issues in death attitudes* (pp. 91-114). Psychology Press.

Wong, P. T. P. (1998). Implicit theories of meaningful life and the development of the personal meaning profile. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 111-140). Mahwah, NJ: Erlbaum. Lawrence Erlbaum Associates Publishers.

Wong, P. T. P. (2011). Positive psychology 2.0: Towards a balanced interactive model of the good life. *Canadian psychology / Psychologie Canadienne*, 52(2), 69-81.

Wong, P. T. P. (2012). *Acceptance & well-being: A meaning-management perspective*. Paper presented at the Australian Positive Psychology Conference 2012, Wollongong.

Wong, P. T. P. (2017). Meaning-centred approach to research and the future of humanistic psychology. *The humanistic psychologist*, 45(3), 207-216. doi:10.1037/hum0000062

Wright, M. R., & Brown, S. L. (2017). Psychological well-being among older adults: The role of partnership status. *Journal of Marriage and Family*, 79(3), 833-849.
doi:10.1111/jomf.12375

Zhang, H., Chen, K., & Schlegel, R. (2018). How do people judge meaning in goal-directed behaviors: The interplay between self-concordance and performance. *Personality and Social Psychology Bulletin*. doi:10.1177/0146167218771330

Concordance of goals and meaning in the intrapersonal life domain: Associations with demographic variables and well-being

Section 3

Conclusion and Reflection

Summary and Conclusion

The findings of this study concluded that the intrapersonal domain featured strongly as the reason for goals or meaningful things and not necessarily as goals or meaningful things as such. Significant interactions between patterns of alignment, certain demographic variables (age, level of education, standard of living, and marital status), and selected measures of well-being were found. This led to the conclusion that there was only partial support for the self-concordance model (Sheldon & Elliot, 1999) in this study, with suggestions for practical application. To contextualise these findings, a brief background will be presented.

This study forms part of the FORT3 research project that explored the prevalence of levels of psychosocial health with regards to the dynamics and relationships with biomarkers of (ill) health in a South African context. As part of the investigation of the nature, sources, and motivation for positive relationships, the relationship between goals, meaning, and additional aspects of psychosocial well-being led to this study.

The aim of this study was to investigate concordance patterns of valued goals and meaningful things on an intrapersonal level and in which ways these different patterns were associated with demographic variables and indicators of well-being. The patterns of alignment were identified as no-goal-no-meaning, both-goal-and-meaning, only-goal-no-meaning, and only-meaning-no-goal when referring to important goals and meaningful things, as well as reasons therefor, in the intrapersonal domain of life (cf. Wissing, Carlquist, Martos, & Schutte, 2017).

A mixed methods convergent parallel design was used with cross-sectional collection of quantitative and qualitative data. The qualitative data on goals and meaning as manifested in the intrapersonal life domain was coded and analysed to determine the level of concordance.

Regarding the frequencies of goals and meaning, the results were in contrast with findings by Park, Tsukayama, Goodwin, Patrick and Duckworth (2017); Steffel and Oppenheimer (2009); and Wilson, Wissing, Ndima, and Somhlaba (2018), as well as the self-concordance model (Sheldon & Elliot, 1999). The model assumes that people will put more effort into pursuing self-concordant goals, but the results of the current study indicated that intrapersonal domain was rather mentioned as a reason for goals or for meaningful things, than as a goal or meaningful thing itself.

The next step was to determine possible associations between alignment patterns and the demographic variables (gender, age, standard of living, education, and marital status). There were no significant differences between the genders and, although the both-goal-and-meaning pattern was most prevalent for gender and age, it was found that this pattern in the intrapersonal domain became less common as people grew older, while the meaning-no-goal pattern increased. The both-goal-and-meaning pattern also increased as the standard of living and education increased. It was, however, interesting to note that the participants with lower education rather mentioned the intrapersonal domain as a meaningful thing than as a goal. Although there were no significant differences in the alignment patterns based on marital status, it is noteworthy that the participants who cohabituate had the highest prevalence of not mentioning the intrapersonal domain as either a goal or a meaningful thing. In comparison with other groups, they had a low concordance of having goals and meaning, but not significant enough to make any conclusions in this regard. In search for probable

explanations for the above-mentioned findings, the following information could shed some light on the results.

Işık and Üzbe (2015) found that although the search for meaning may vary in intensity according to the developmental stage, it is fundamentally a lifelong process. In this case, the results are in line with Erikson's (1968) developmental theory, which identifies intrapersonal developmental tasks, such as identity formation, as the relevant developmental task for younger individuals (as the goals in this group), while older people will rather establish integrity (as displayed in their experience of meaning). Linking to age, Grouden and Jose (2014) in a study found that financial stability (directly related to standard of living) contributed toward meaning in older people's lives; it is, therefore, understandable that goals and meaning on an intrapersonal level increased as standard of living improved. The same results were found for education, which can be connected to Maslow's (1970) hierarchy of needs, whereby higher level of functioning allows for focus on intrapersonal dimensions in pursuit of goals and meaning.

One-way ANOVAs indicated no significant associations between alignment patterns and various scales of well-being (SWLS, PANAS-PA, PANAS-NA, MLQ-P, MLQ-P and MHC-SF). However, the interaction between the alignment patterns and demographic variables in connection with well-being indicated some significant results.

In particular, two-way ANOVAs indicated some statistically significant results or clear trends for age, level of education, and standard of living. Regarding age, it was interesting to note that nearly all the participants indicated the same level of well-being on the MLQ-P when they had a both-goal-and meaning alignment pattern. The findings on education and standard of living, as indicated by well-being scales, support Maslow's (1970) basic principles, whereby people with lower levels of education and standard of living might rather focus on the basic needs (e.g., physical needs) when they set goals for themselves. As

education and standard of living increase, the focus shifts to intrapersonal goals and meaning. Regarding marital status, the largest differences between the overall mental health (as measured by the MHC-SF) of the different alignment groups were detected for the group who indicated that they were cohabitating. However, the married participants, who formed the largest group ($n=340$), had the most consistent mental health in all the alignment patterns.

It is important to note that the results of this study should not be generalised due to the constraint of convenience sampling. The findings for this group should also be interpreted with caution due to the small size of some of the subgroups.

Implications

This study indicated that life stage and context are important considerations to keep in mind when trying to understand the patterns of alignment between goals and meaning in the intrapersonal domain. The intrapersonal domain featured very strongly in the motivation for people's goals and meaningful things, which thereby emphasizes the importance of the intrapersonal functioning for people's behaviour. It is important to take demographic factors such as gender, age, standard of living, education, and marital status into consideration when developing interventions that focus on goals and meaning, as a one-size-fits-all approach may not be suitable or effective. Clarifications of values, goals, and behaviour linked to the alignment of goals and meaning in specific contexts can be facilitated in face-to-face or small group discussions, or via a diary or digital diary application. It goes without saying that the effectiveness of possible interventions to facilitate alignment of goals and meaning should be scientifically evaluated by a variety of well-being outcome measures.

Further research is necessary to determine to what extent similar or different findings will be obtained in other domains of life, such as the interpersonal or community life domains. As such, more information is needed before the self-concordance model can be used as backdrop for the facilitation of eudaimonic well-being across all domains of life. The

present study indicated that demographic context may also be an important factor to be taken into account.

Reflection

The personal journey of growth started long before the writing of the mini-dissertation – it began with the desire to enrol for a Master's degree in Positive Psychology. As such, the field of positive psychology is fascinating and the growth process was sparked from the first communication from AUPHeR regarding proper preparation for the first class, namely studying the prescribed handbook. From the first class onwards, everything regarding the field of positive psychology was intriguing and sparked the signature strengths of curiosity and love of learning.

The integration of the key concepts and knowledge of positive psychology with the realities of life opened up a new paradigm on an intrapersonal level. It was a positive confrontation of critical questions regarding personal choices and goals.

One of the goals was achieving this Master's degree and the process of deciding on a suitable research topic. Although this study used already gathered data, the fact that the intrapersonal life domain was addressed was the persuasive factor. Critical thinking was required and a new world of knowledge opened up through learning to read extensively. The process involved obtaining vast background knowledge, whereafter the most relevant literature needed to be selected through critical thinking, objectively evaluating diverse ideas, and finding answers to crucial questions in order to reach conclusions.

With the guidance of extremely knowledgeable and experienced study leaders, the submission of the research proposal to two academic committees provided significant guidelines in order to apply to the Human Research Ethics Committee (HREC). The committee promotes and upholds strict ethical research standards regarding the research

process, participants, ethical considerations, and regulations, with the aim of ensuring that research is done ethically.

The process of a thorough literature review formed a strong foundation in order to develop a research proposal, which firstly had to be approved by a subject research group and subsequently by the AUTHeR Research Proposal Committee of the African Unit for Transdisciplinary Health Research, and only then could it be submitted to HREC. These processes established a strong basis for the next steps in the research process and did not only contribute to the knowledge of the research subject, but also the field of sound research methodology.

The qualitative data of the study were converted into quantitative data by implementing coding categories (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011), and associations among variables were explored through statistical analysis. This process involved rigorous exploration of quantitative research and resulted in substantial expansion of existing knowledge.

Self-discipline, determination, and effective time management played a vital role in delivering a scientifically sound mini-dissertation within the expected time frame. Choices and obligations regarding priorities had to be made and it contributed to personal growth, as well as insight into goals and meaning on intrapersonal level.

This study would not have been possible without the exceptional guidance and support of qualified, expert supervisors. Each phase of the research process was subject to intensive review and inputs from a professional, experienced team who had invaluable oversight and gave guidance with encouraging support and direction. Their diligent ethical and academic awareness provided wise counsel, serving as a sound basis for any future research endeavours.

Conducting this study was simultaneously a challenge and privilege. It fostered the opportunity for self-development, resilience, and the achievement of knowledge, which directly impacted on attitude and behaviour. It is a great honour to have the opportunity to contribute to the field of positive psychology, especially playing a part in understanding and promoting well-being on intra-personal level.

References

- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., and Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness. *Social indicators research, 100*(2), 158-207. doi:10.1007/s11205-010-9632-5
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Grouden, M. E., & Jose, P. E. (2014). How do sources of meaning in life vary according to demographic factors? *New Zealand Journal of Psychology, 43*(3), 29-38.
- Işık, Ş., & Üzbe, N. (2015). Personality traits and positive/negative affects: An analysis of meaning in life among adults. *Educational sciences: Theory & practice, 15*(3), 587-595. doi:10.12738/estp.2015.3.2436
- Maslow, A. H. (1970). *Motivation and personality*. New York: Harper & Row.
- Park, D., Tsukayama, E., Goodwin, G. P., Patrick, S., & Duckworth, A. L. (2017). A tripartite taxonomy of character: Evidence for intrapersonal, interpersonal, and intellectual competencies in children. *Contemporary educational psychology, 48*, 16–27. doi:10.1016/j.cedpsych.2016.08.001
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*(3), 482-497. doi:10.1037/0022-3514.76.3.482
- Steffel, M., & Oppenheimer, D. M. (2009). Happy by what standard? The role of interpersonal and intrapersonal comparisons in ratings of happiness. *Social indicators research, 92*(1), 69–79. doi:10.1007/s11205-008-9289-5
- Wilson, A., Wissing, M. P., Ndima, L., & Somhlaba, N. Z. (2018). Representations of hope, goals, and meaning from lay person's perspectives in two African contexts. *Journal of Humanistic Psychology*. doi:10.1177/0022167818785070

Wissing, M. P., Carlquist, E., Martos, T., & Schutte, L. (2017, September). Do goals walk the talk of meaning in well-being? Presentation in symposium: In their own voices: *Lay people's perceptions and dimensions of well-being facets across world regions*. Chairs: Ingrid Brdar (Croatia) & Marié Wissing (SA), Discussant Despina Moraitou (Greece), ISQOLS2017 Annual Conference on "Quality of life: Towards a better society," Innsbruck, Austria.

Appendix A

Associations between alignment patterns and well-being

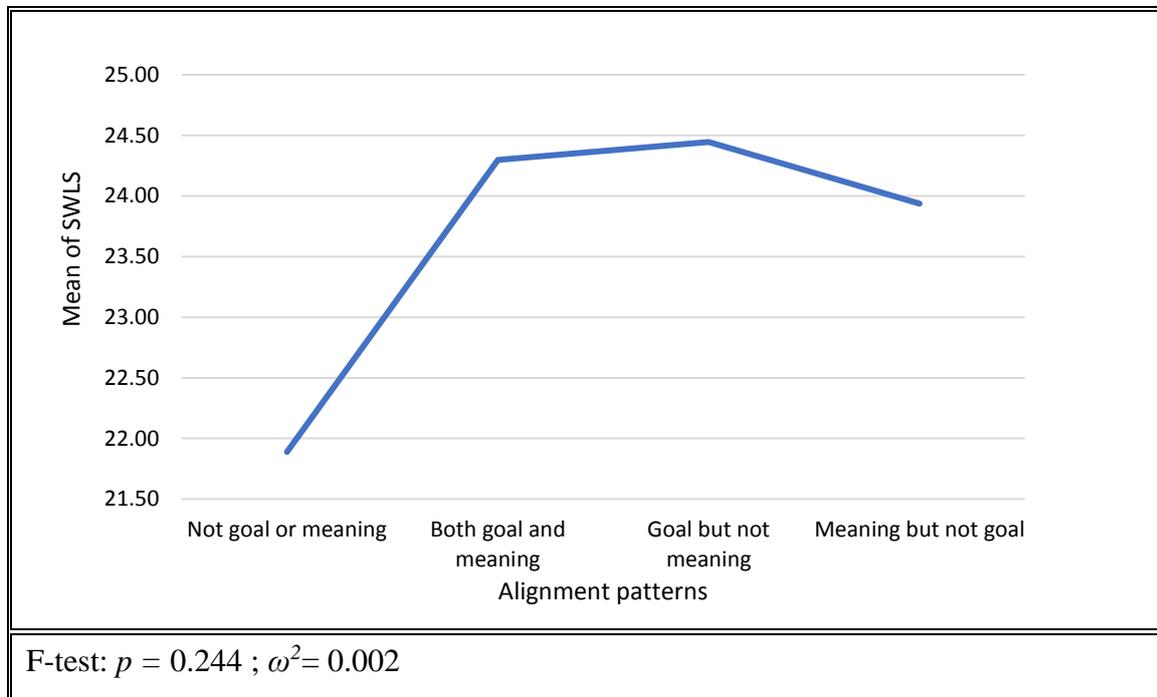


Figure A1. Association between the patterns of alignment and well-being as measured by SWLS

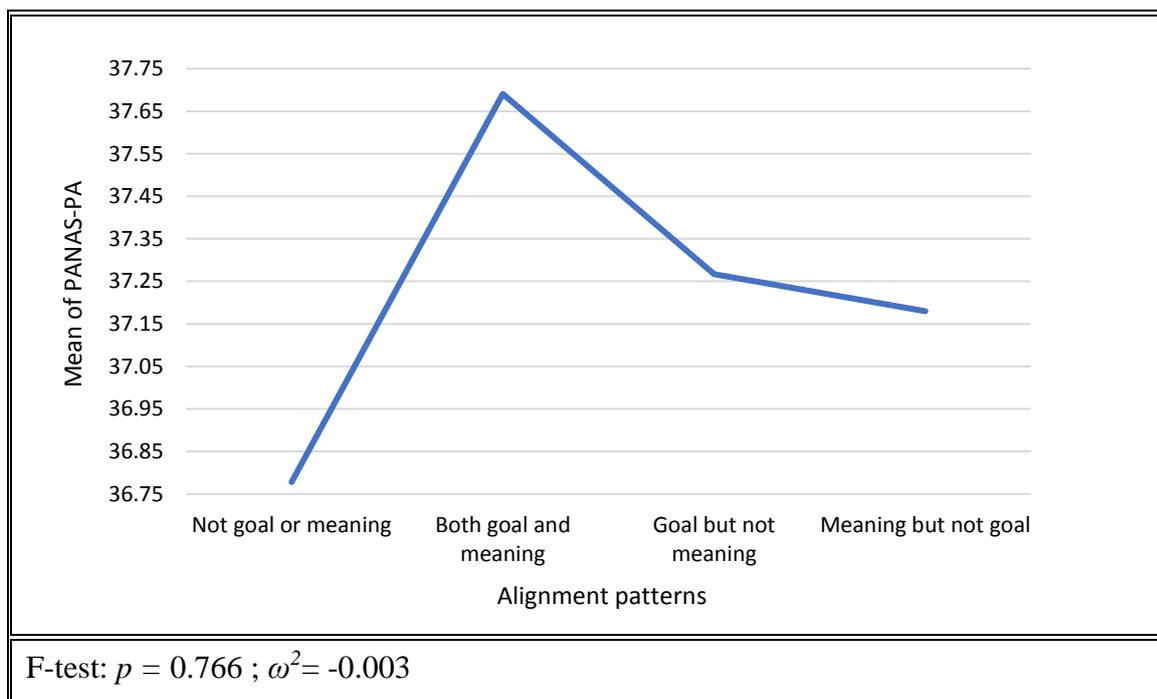


Figure A2. Association between the patterns of alignment and well-being as measured by PANAS-PA

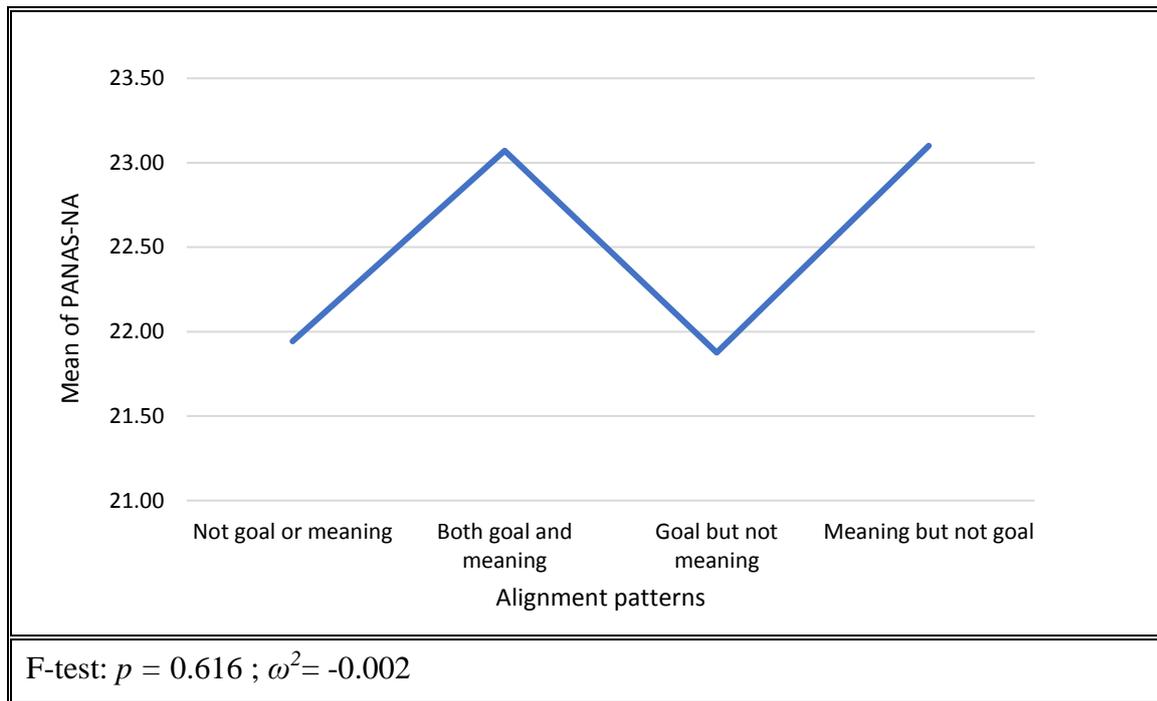


Figure A3. Association between the patterns of alignment and well-being as measured by PANAS-NA

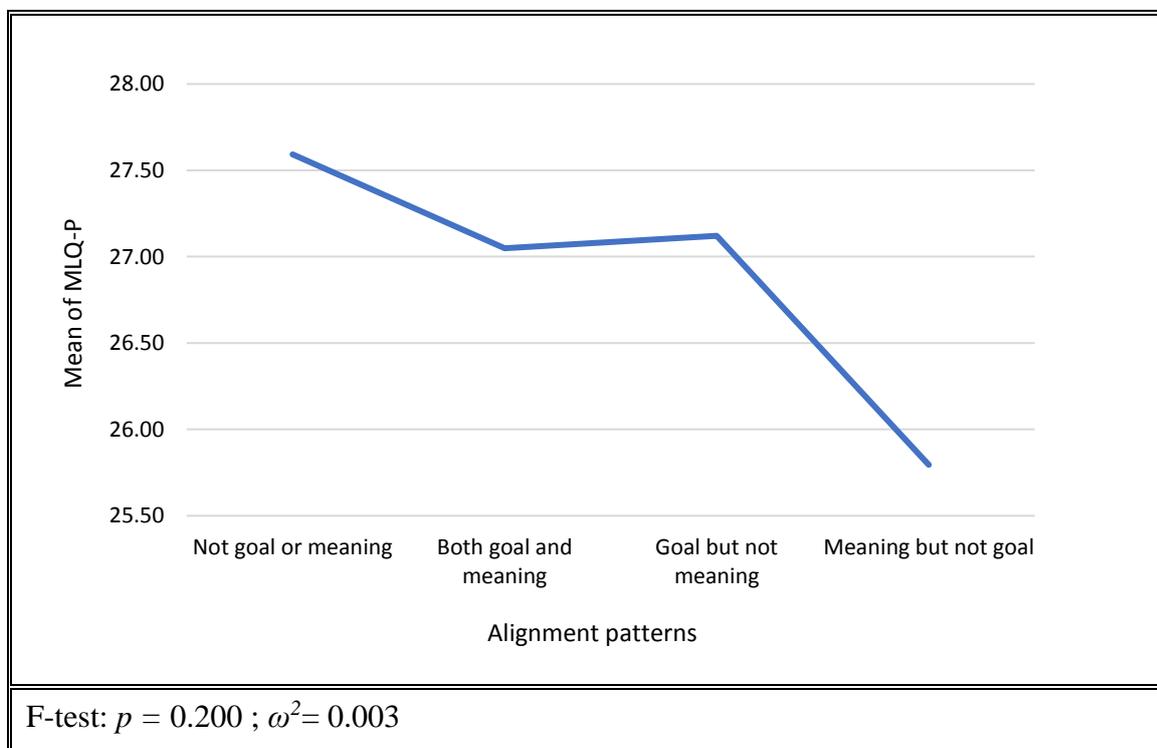


Figure A4. Association between the patterns of alignment and well-being as measured by MLQ-P

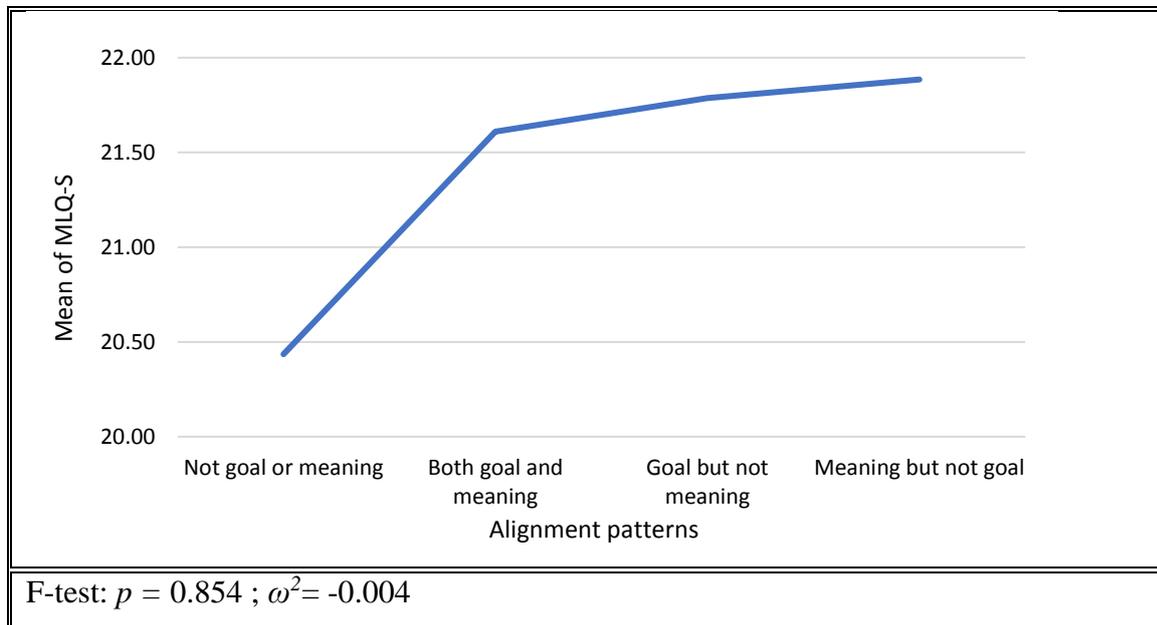


Figure A5. Association between the patterns of alignment and well-being as measured by MLQ-S

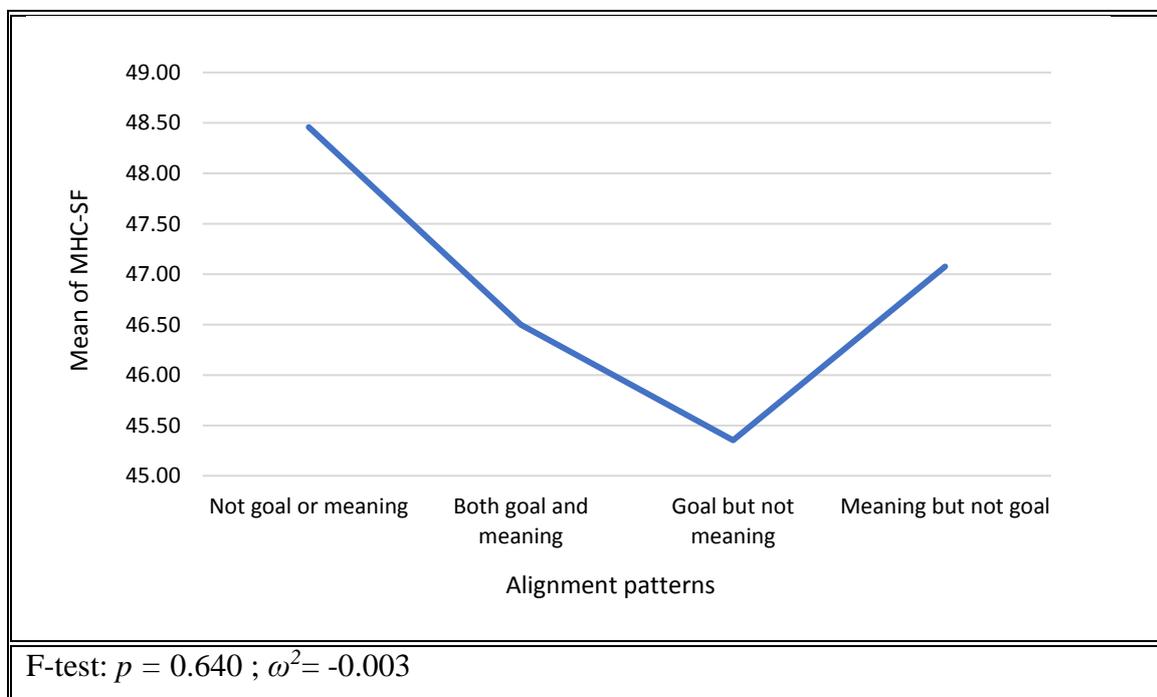


Figure A6. Association between the patterns of alignment and well-being as measured by MHC-SF

Appendix B

Interactions between alignment patterns and demographic variables in their association with well-being

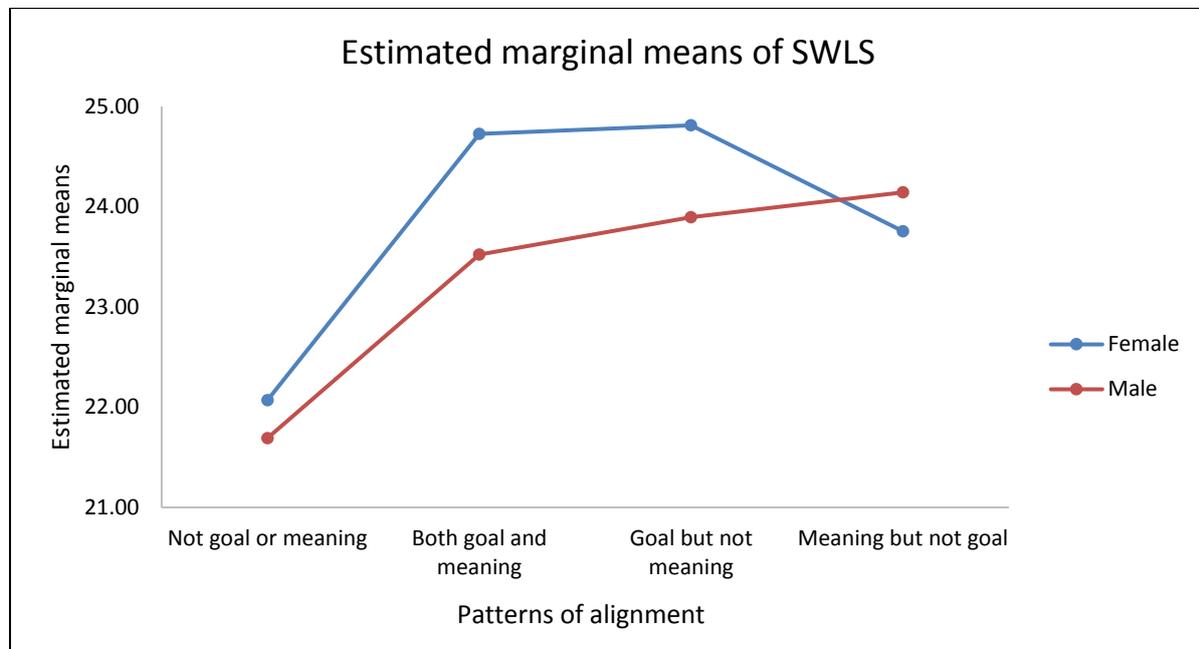


Figure B1. Interaction between the patterns of alignment and well-being as measured by SWLS according to gender

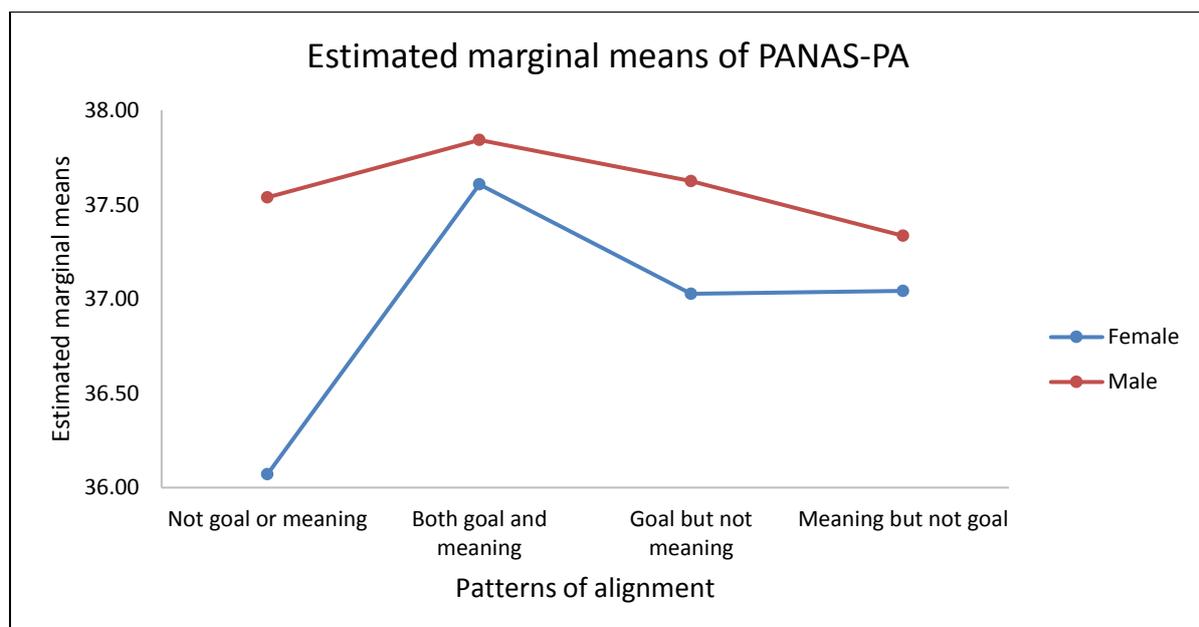


Figure B2. Interaction between the patterns of alignment and well-being as measured by PANAS-PA according to gender

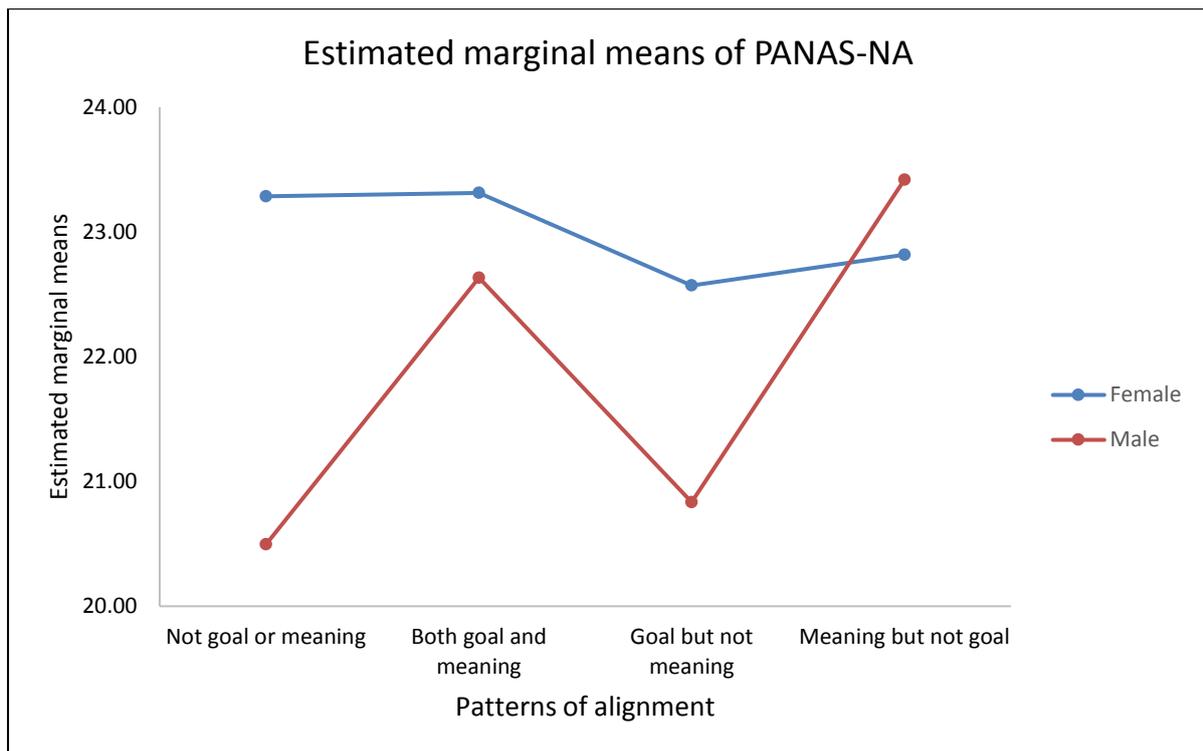


Figure B3: Interaction between the patterns of alignment and well-being as measured by PANAS-NA according to gender

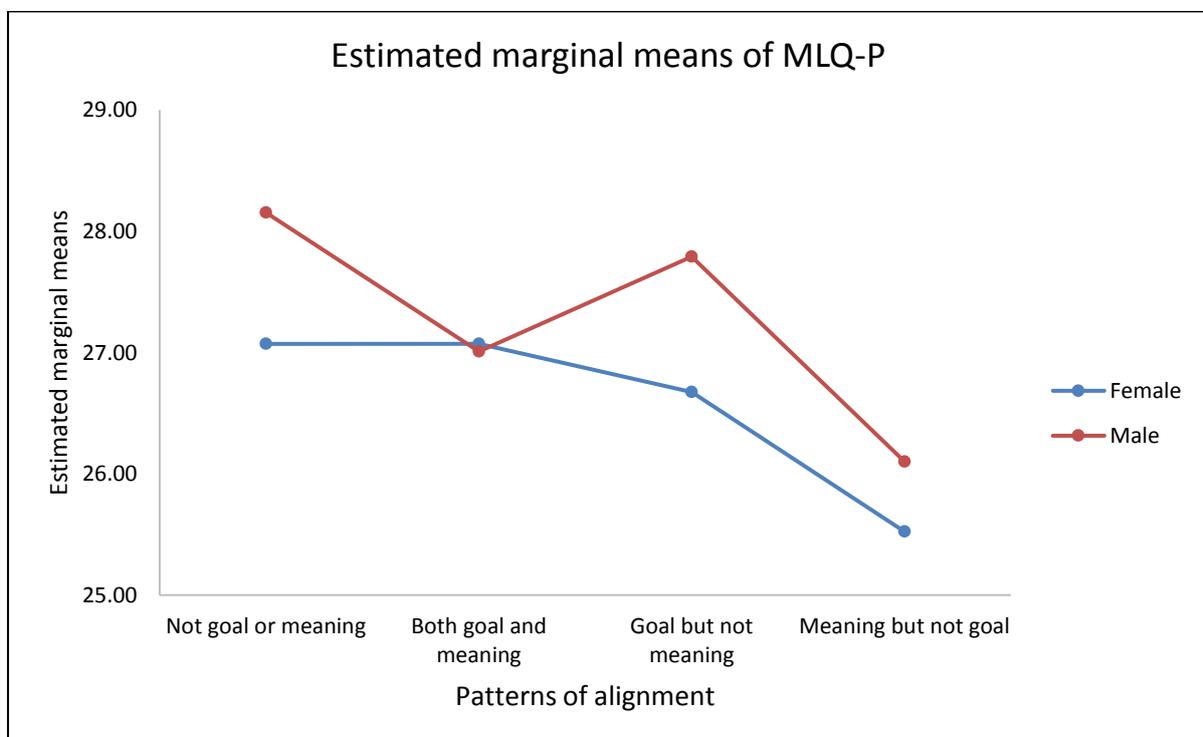


Figure B4. Interaction between the patterns of alignment and well-being as measured by MLQ-P according to gender

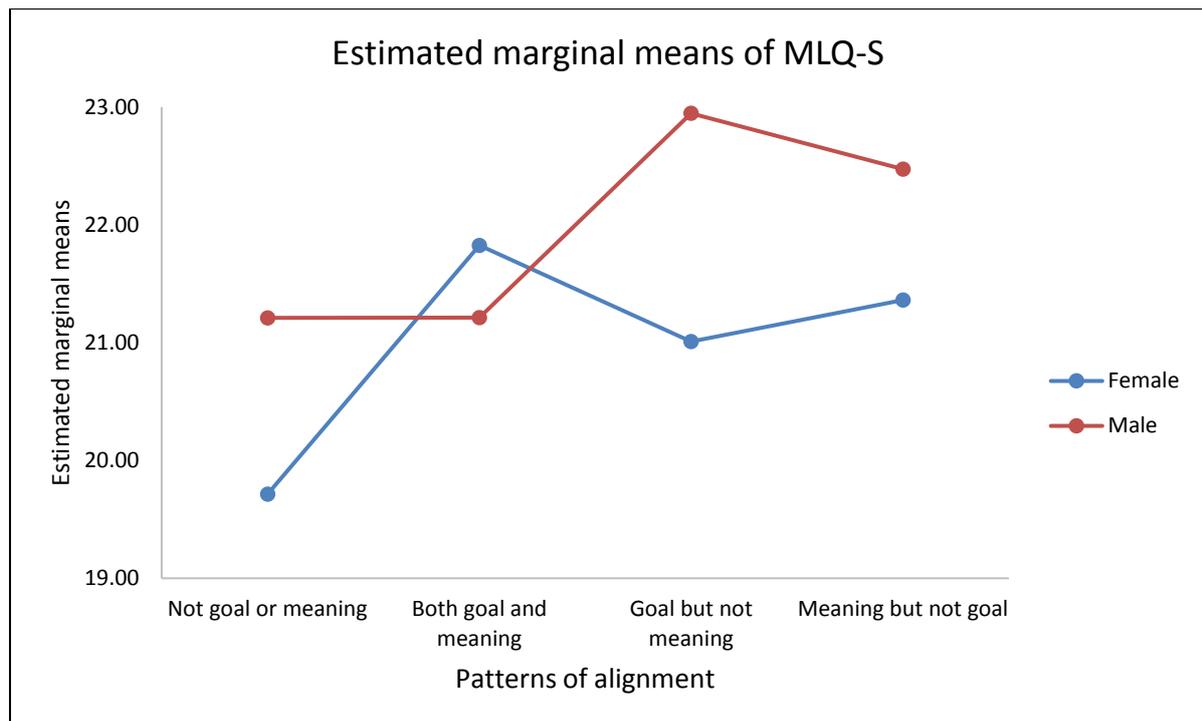


Figure B5. Interaction between the patterns of alignment and well-being as measured by MLQ-S according to gender

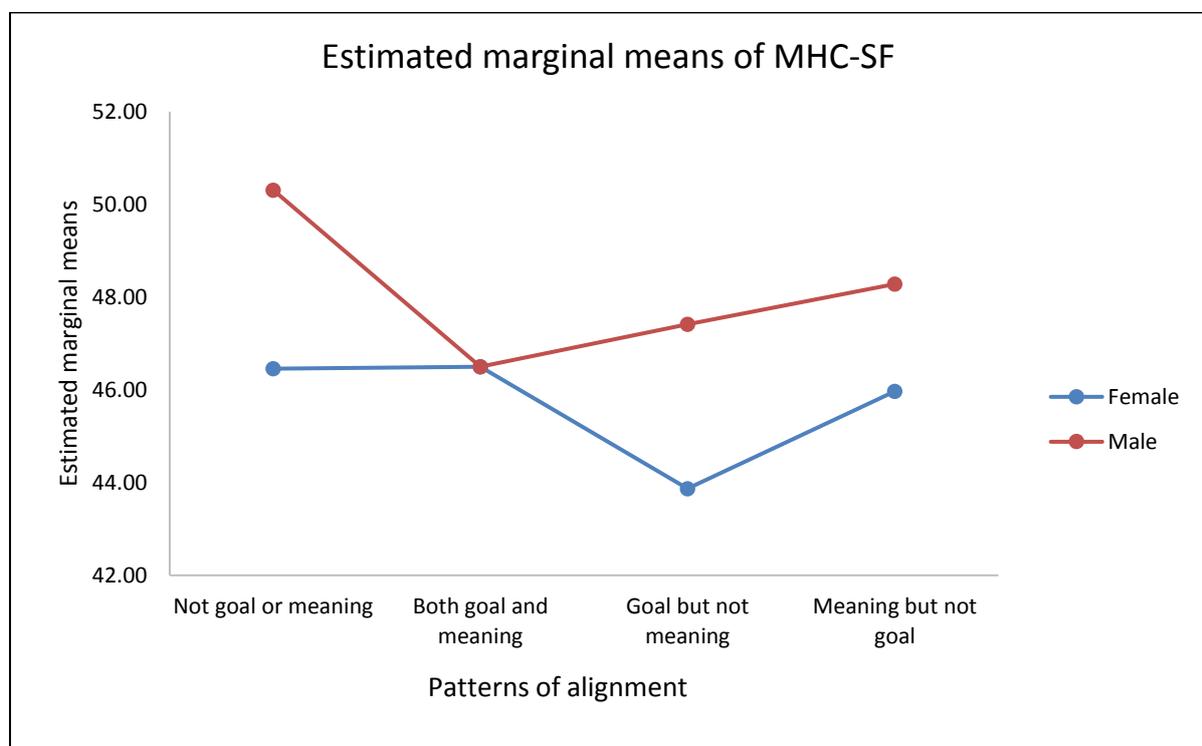


Figure B6. Interaction between the patterns of alignment and well-being as measured by MHC-SF according to gender

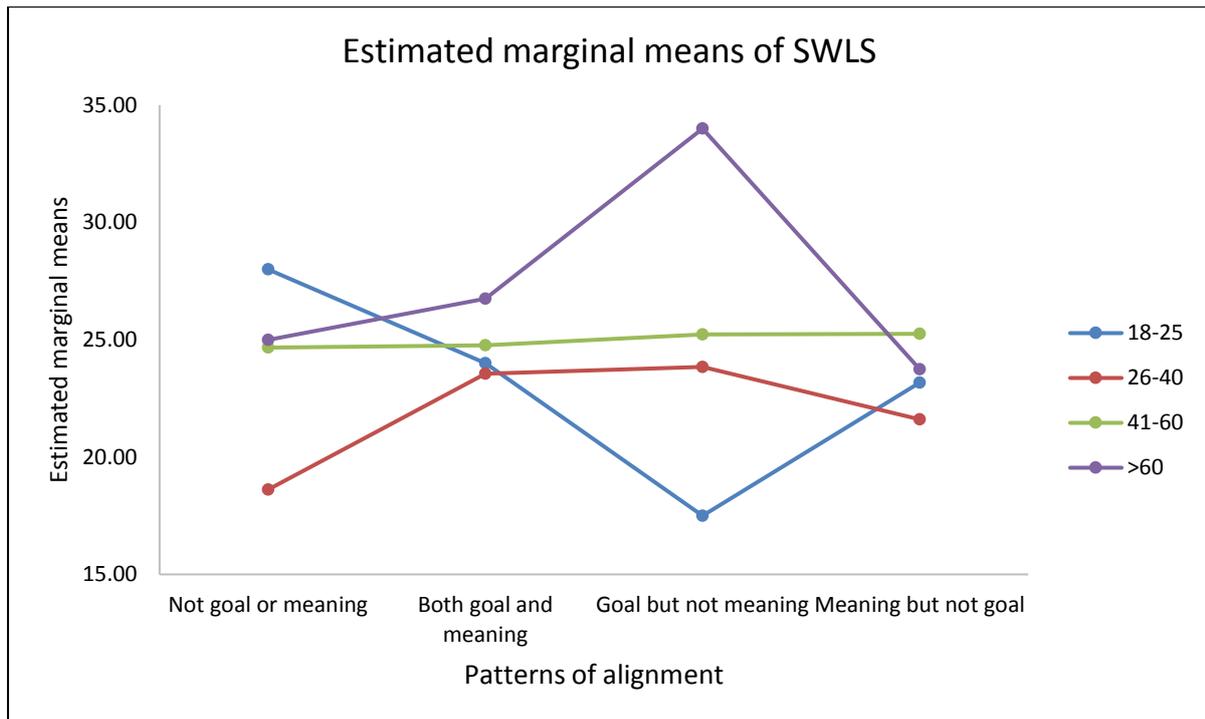


Figure B7. Interaction between the patterns of alignment and well-being as measured by SWLS according to age

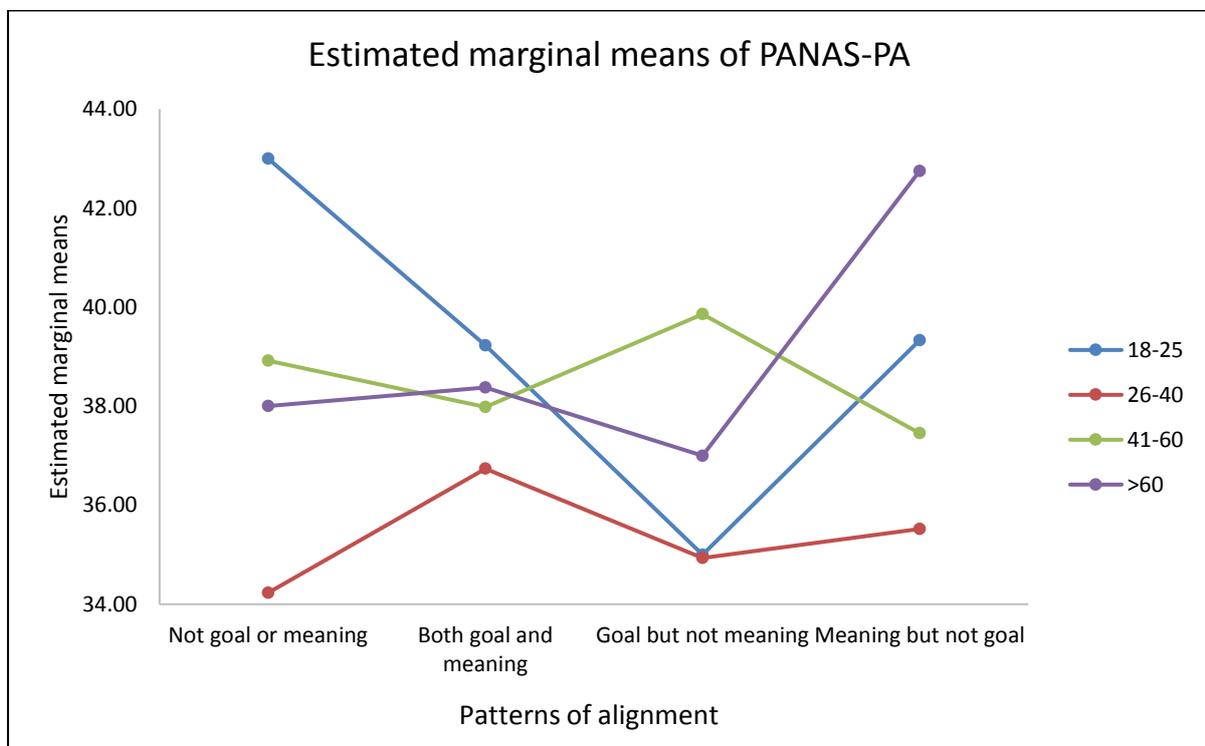


Figure B8. Interaction between the patterns of alignment and well-being as measured by PANAS-PA according to age

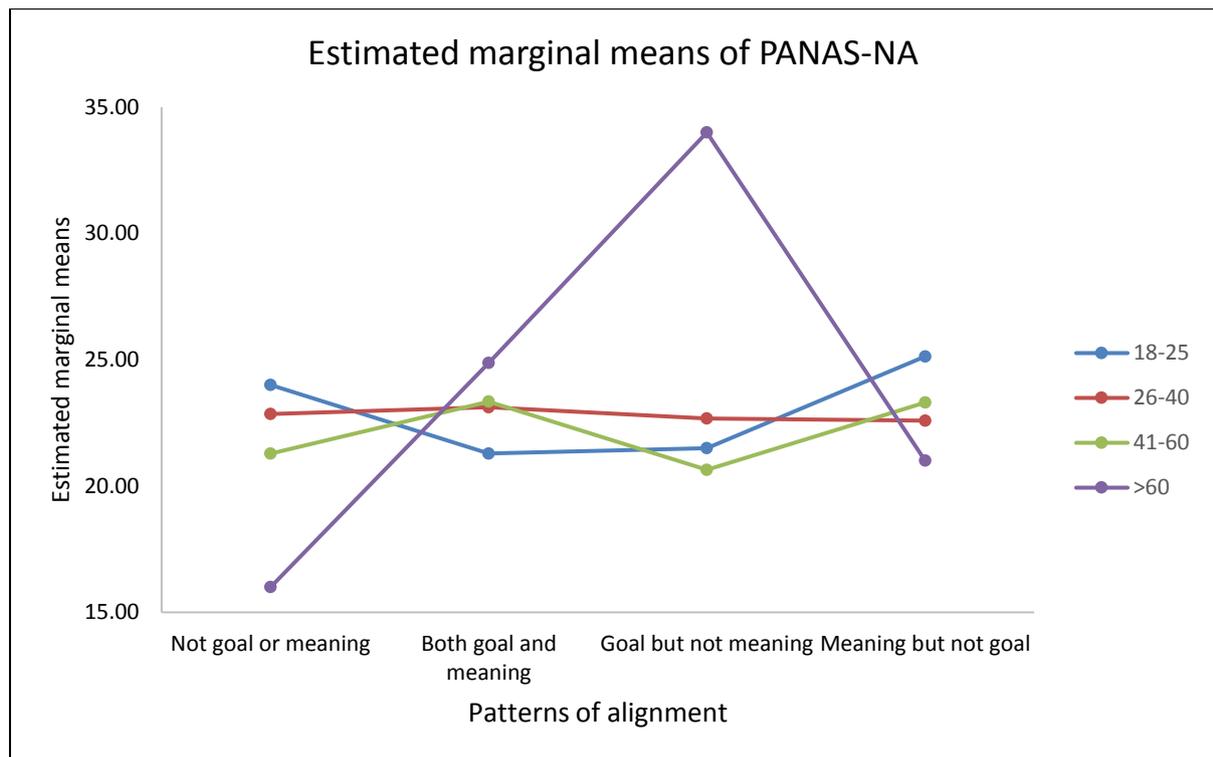


Figure B9. Interaction between the patterns of alignment and well-being as measured by PANAS-NA according to age

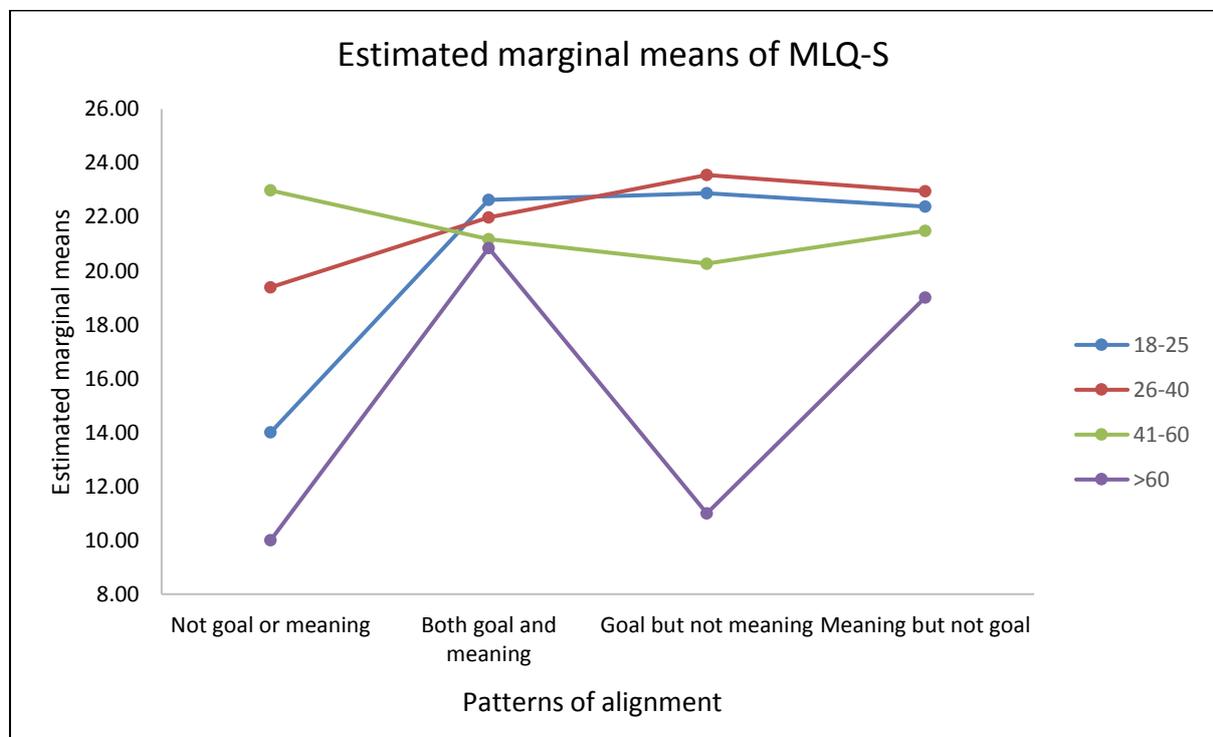


Figure B10. Interaction between the patterns of alignment and well-being as measured by MLQ-S according to age

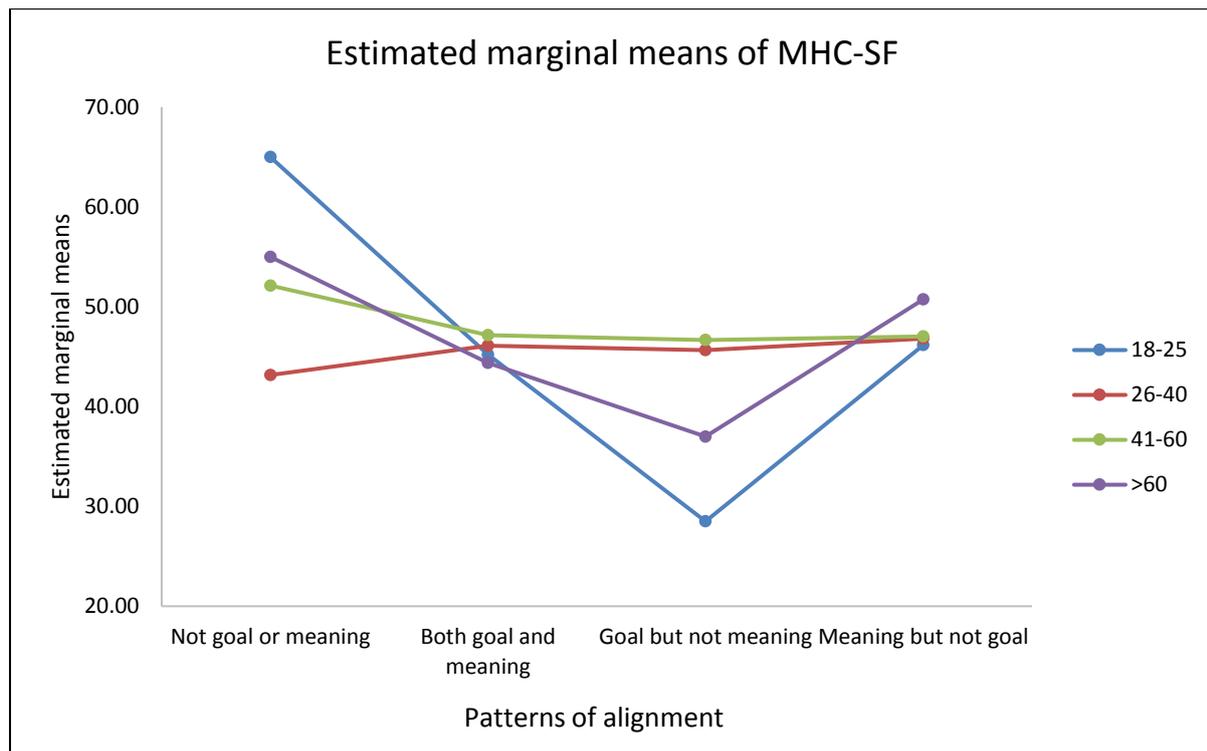


Figure B11. Interaction between the patterns of alignment and well-being as measured by MHC-SF according to age

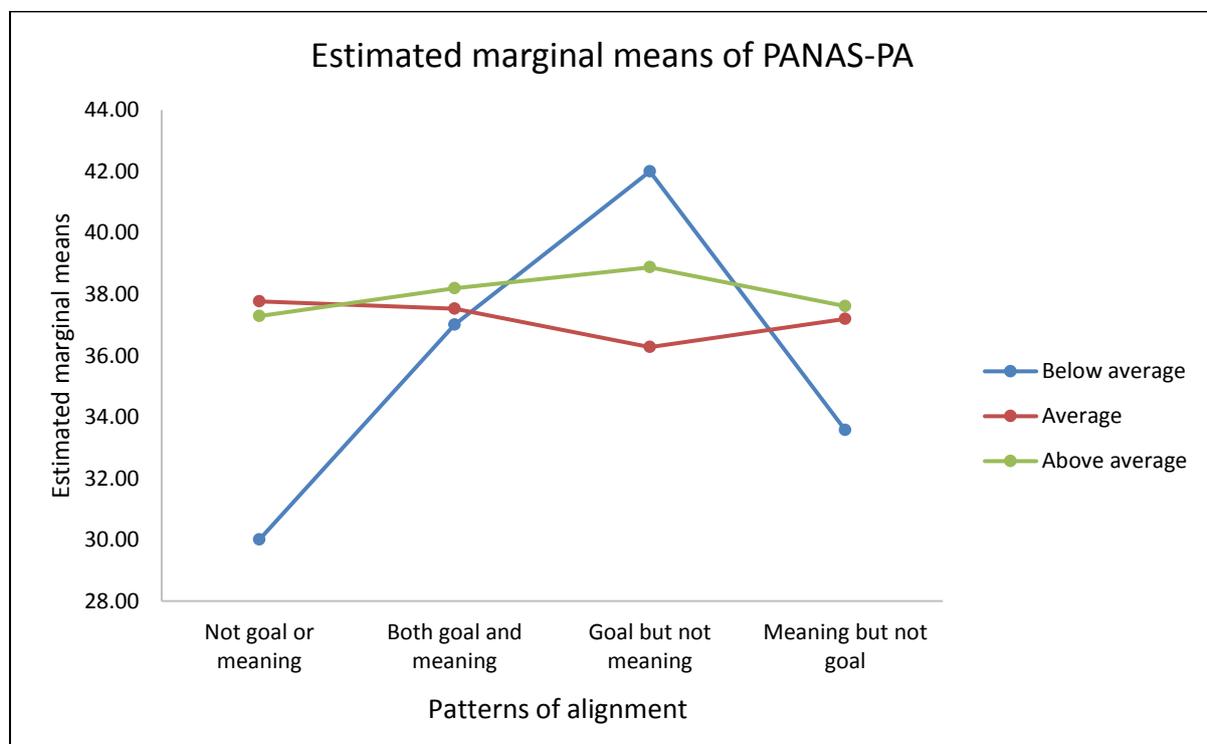


Figure B12. Interaction between the patterns of alignment and well-being as measured by PANAS-PA according to standard of living

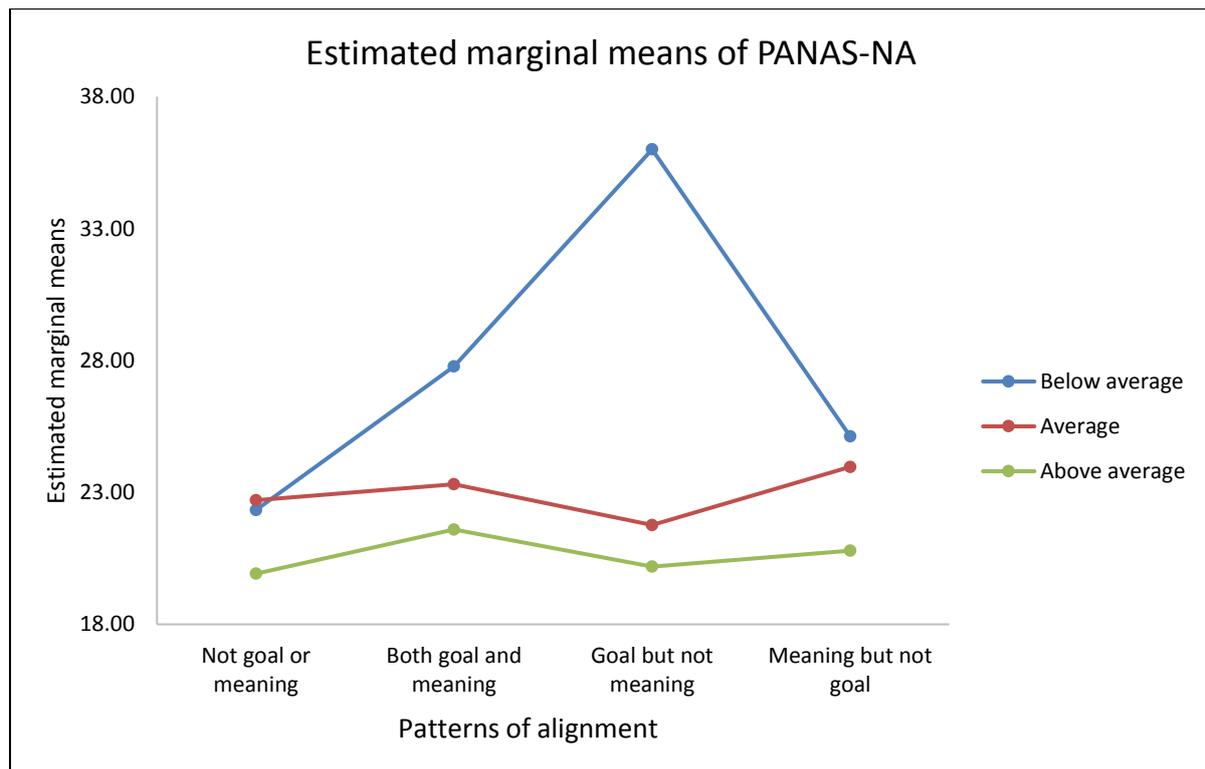


Figure B13. Interaction between the patterns of alignment and well-being as measured by PANAS-NA according to standard of living

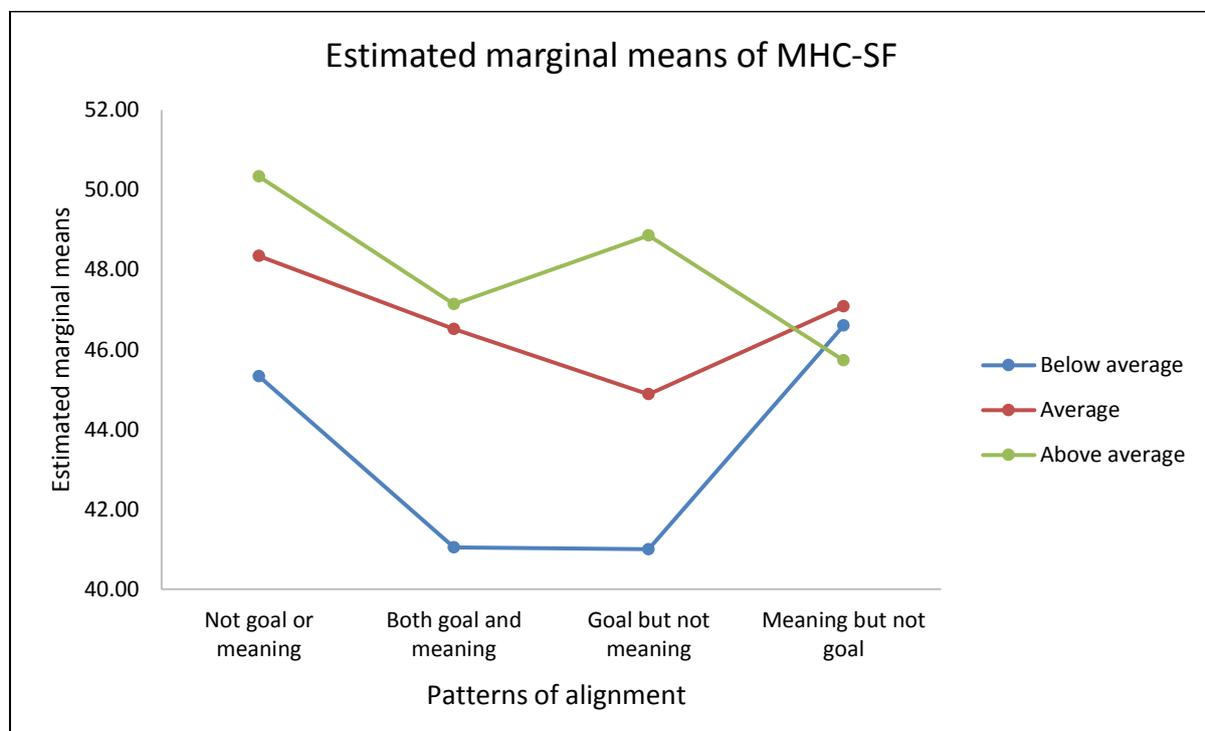


Figure B14. Interaction between the patterns of alignment and well-being as measured by MHC-SF according to standard of living

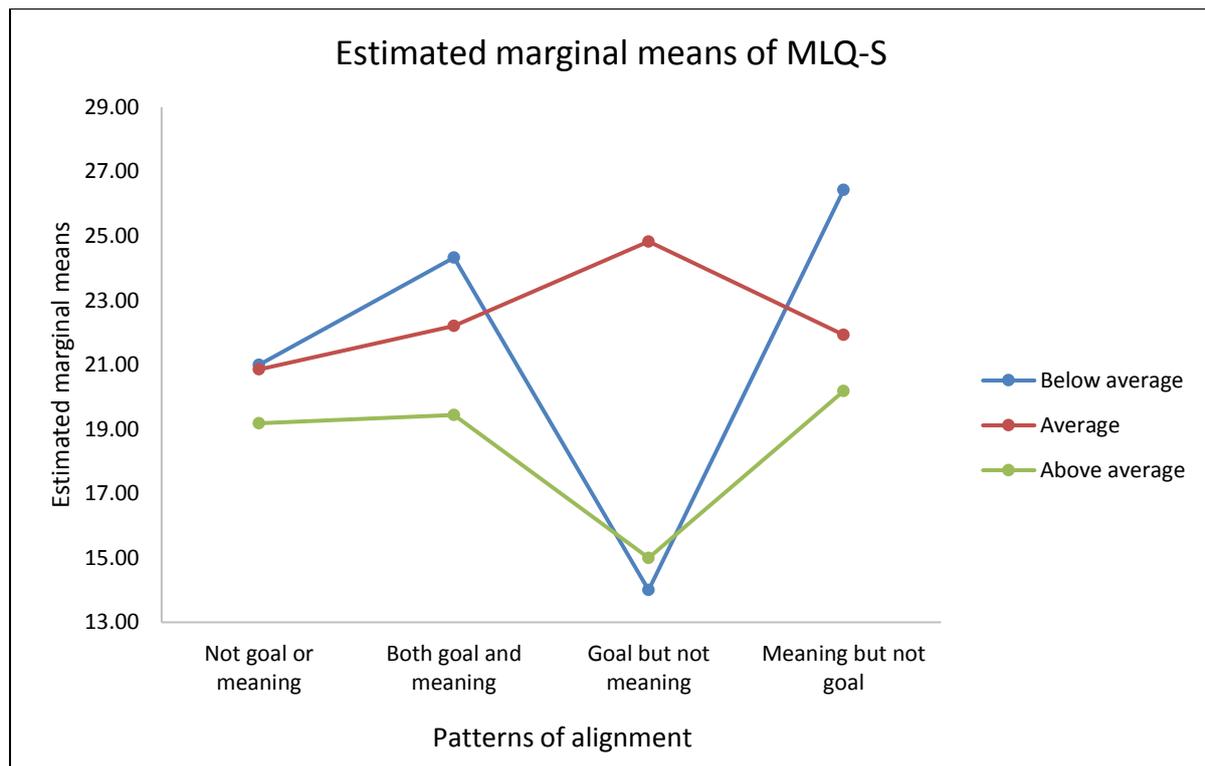


Figure B15. Interaction between the patterns of alignment and well-being as measured by MLQ-S according to standard of living

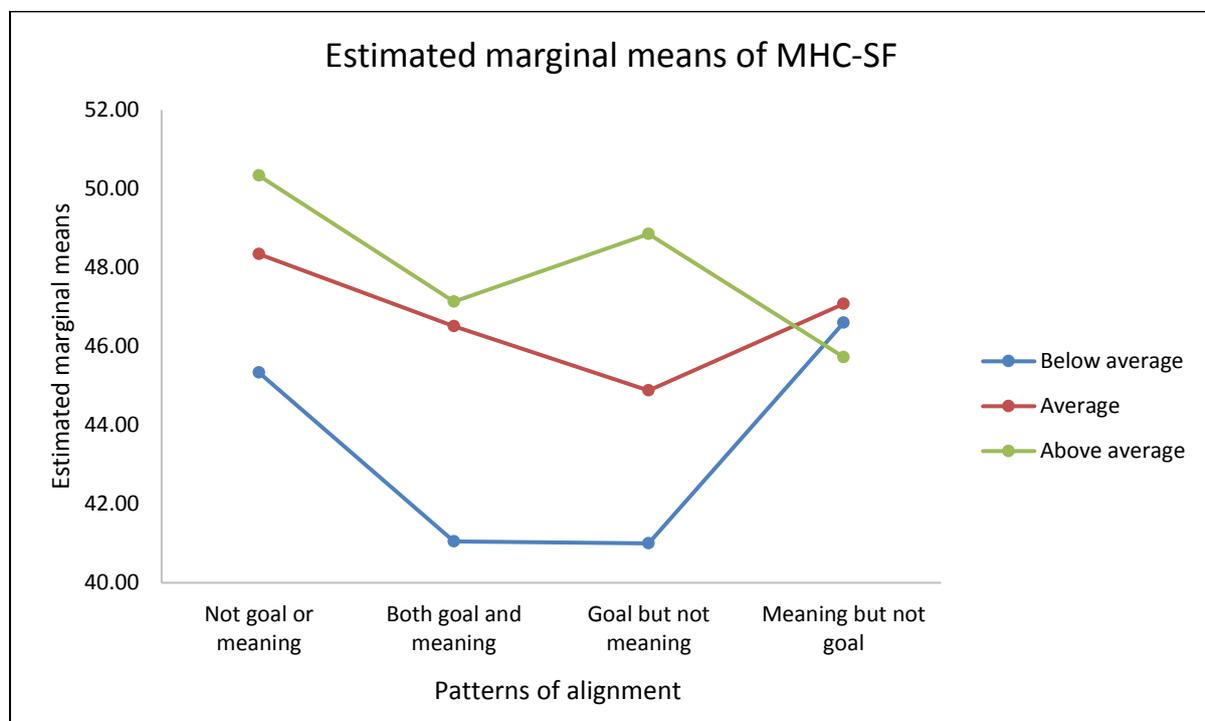


Figure B16. Interaction between the patterns of alignment and well-being as measured by MHC-SF according to standard of living

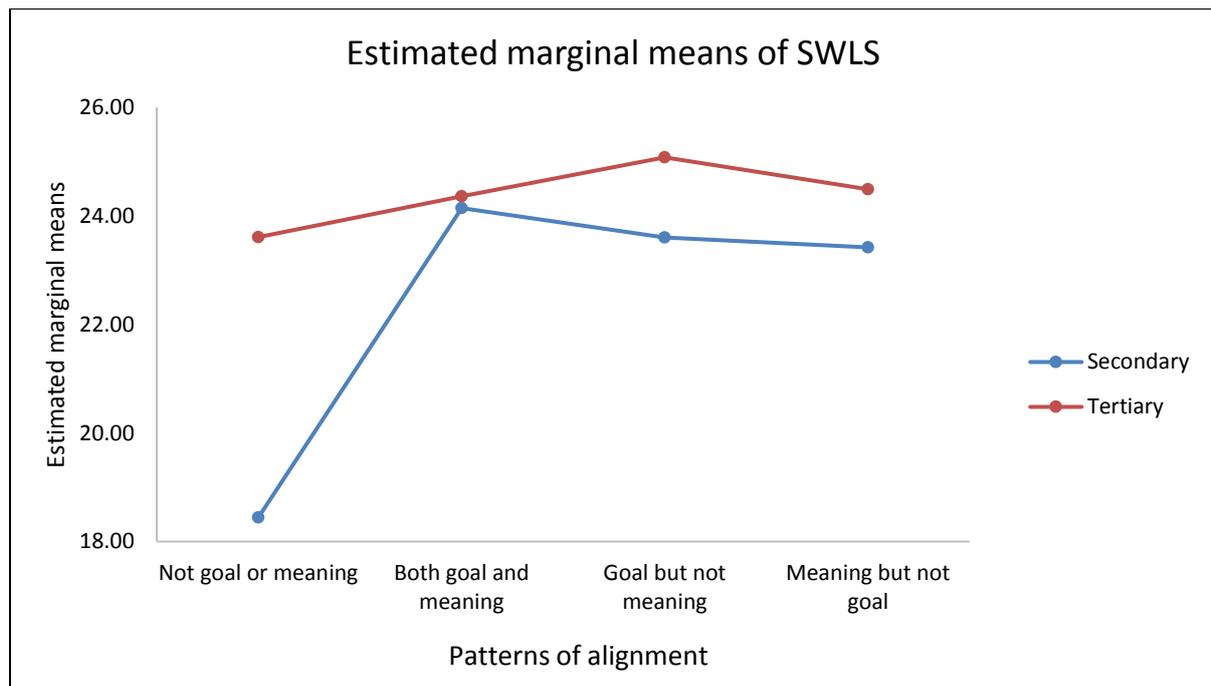


Figure B17. Interaction between the patterns of alignment and well-being as measured by SWLS according to education

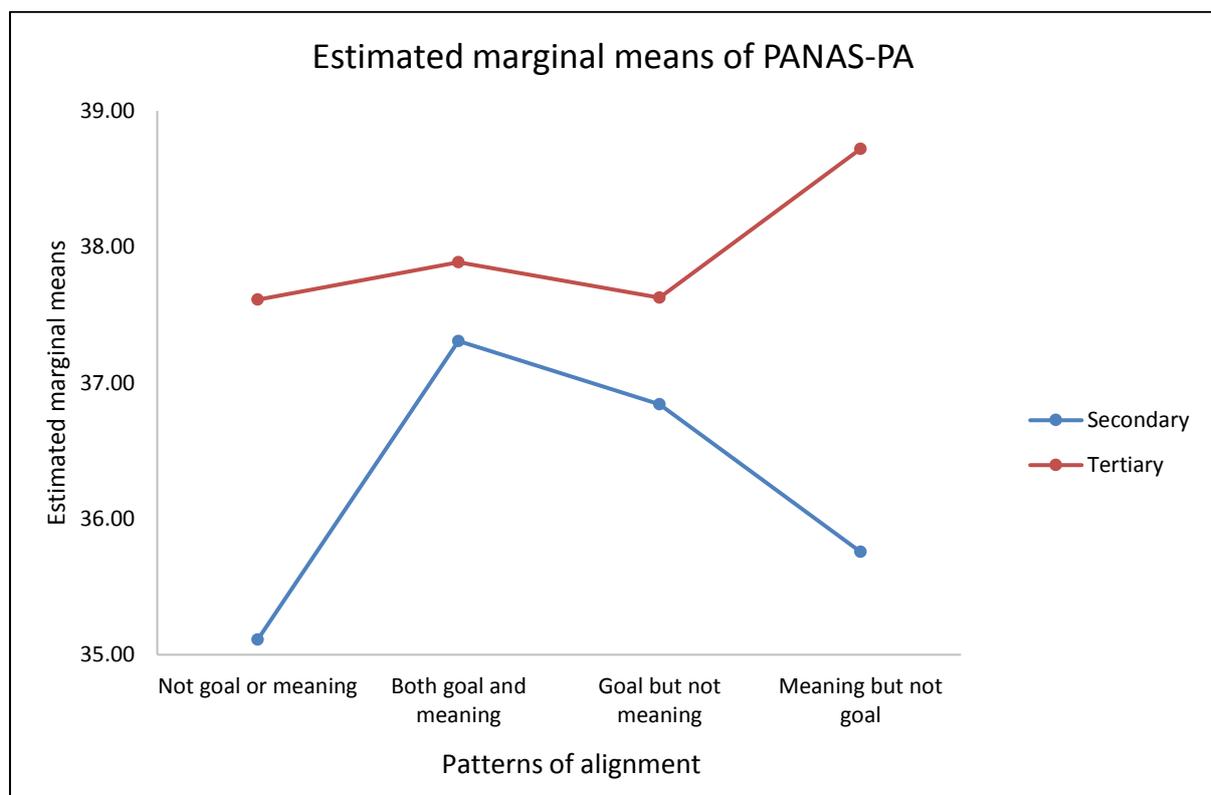


Figure B18. Interaction between the patterns of alignment and well-being as measured by PANAS-PA according to education

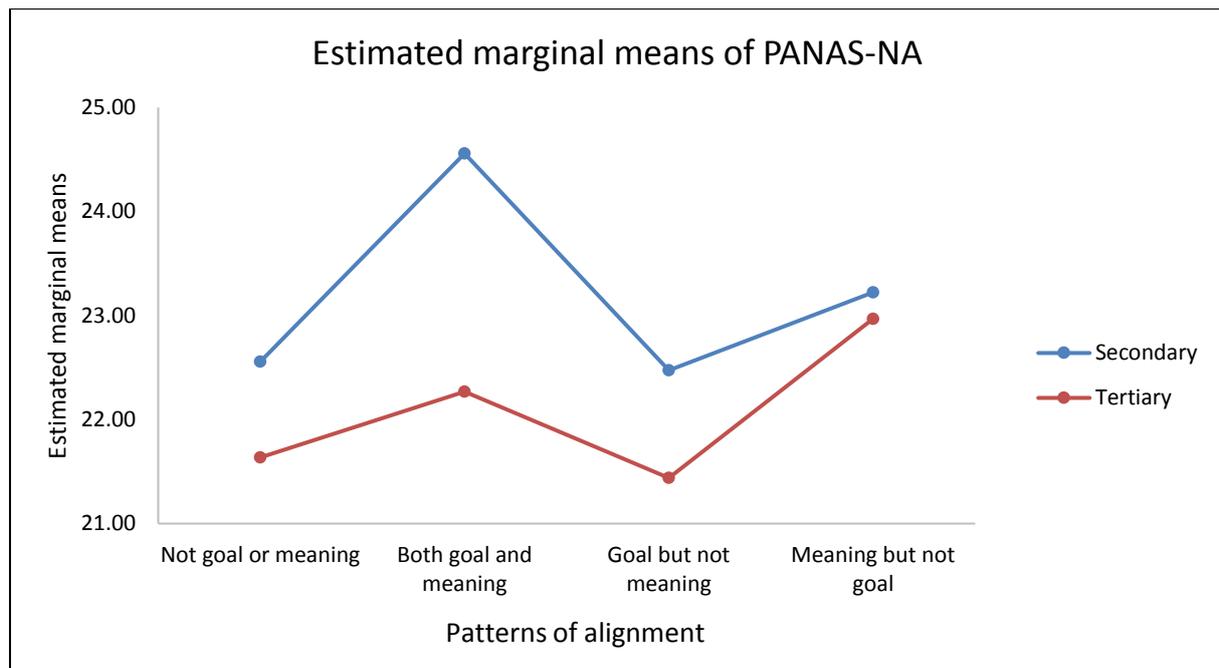


Figure B19. Interaction between the patterns of alignment and well-being as measured by PANAS-NA according to education

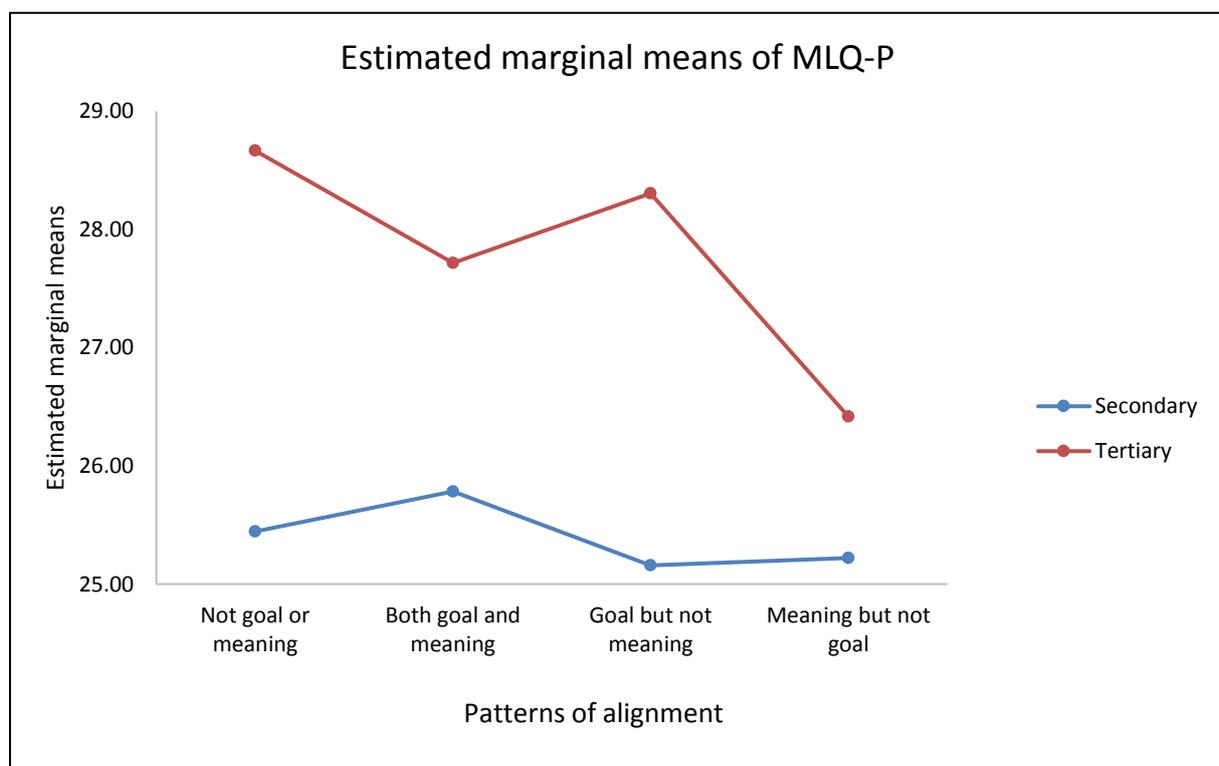


Figure B20. Interaction between the patterns of alignment and well-being as measured by MLQ-P according to education

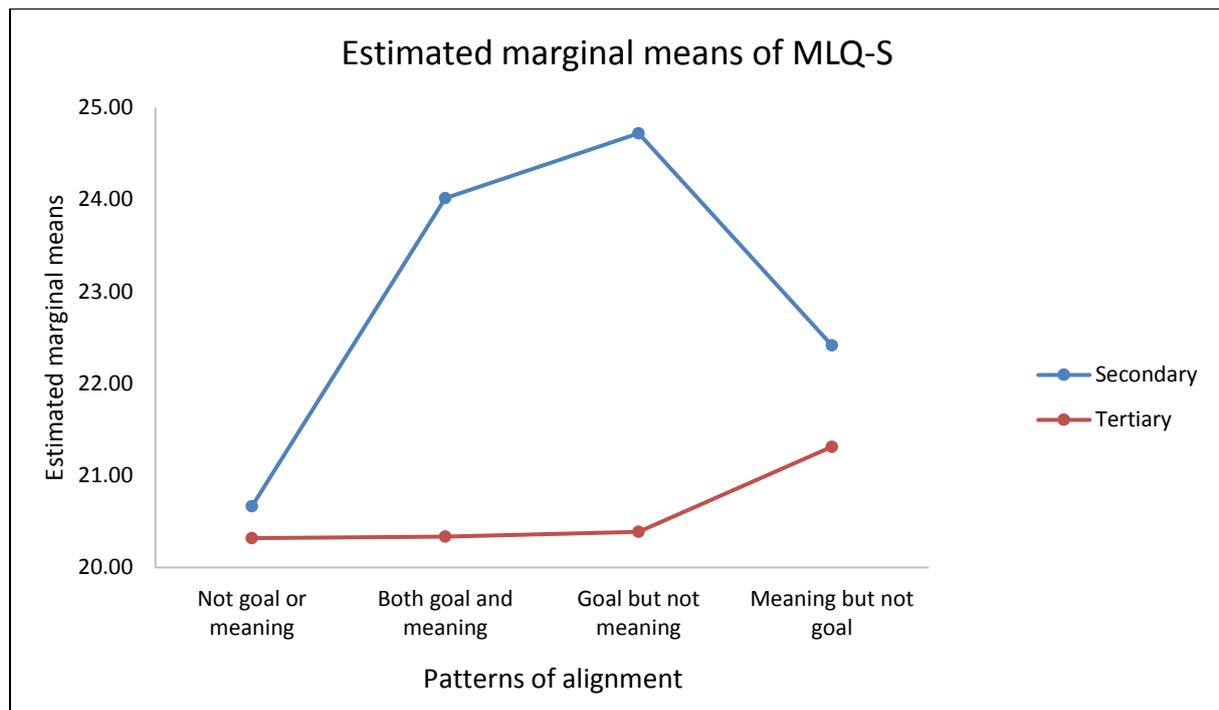


Figure B21. Interaction between the patterns of alignment and well-being as measured by MLQ-S according to education

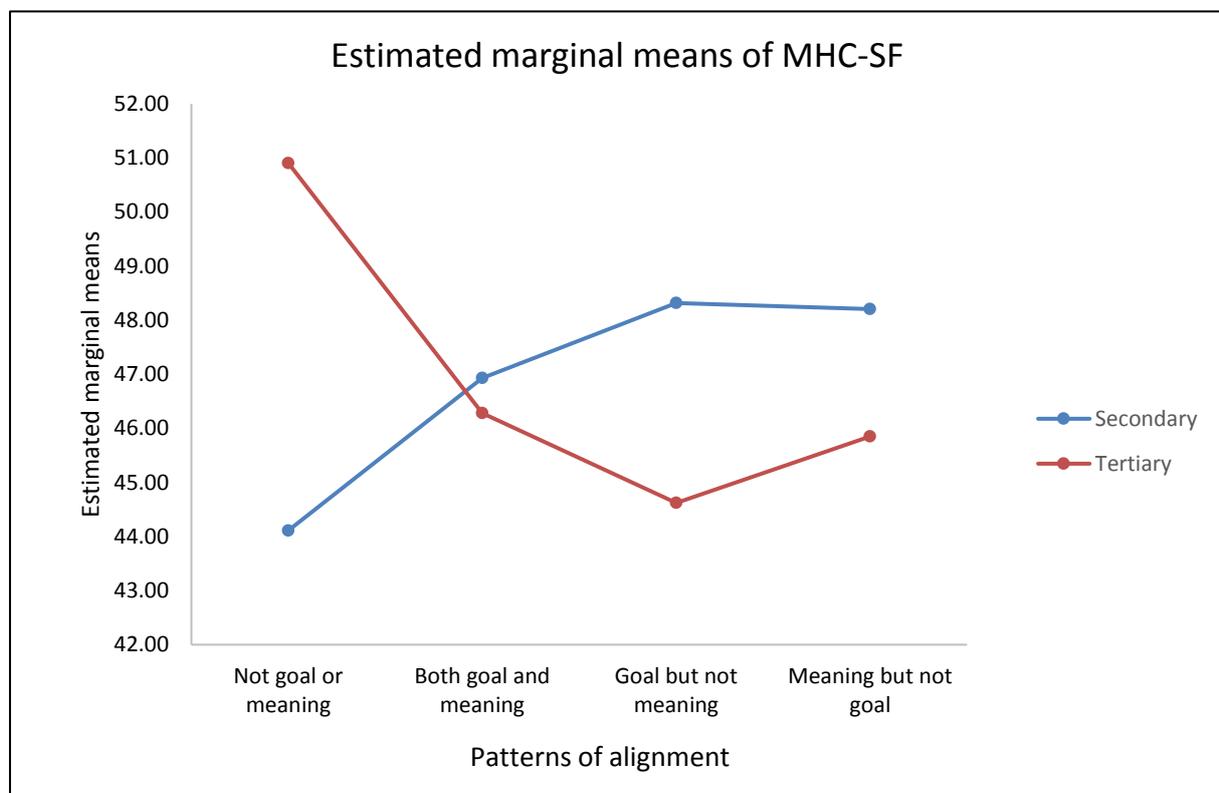


Figure B22. Interaction between the patterns of alignment and well-being as measured by MHC-SF according to education

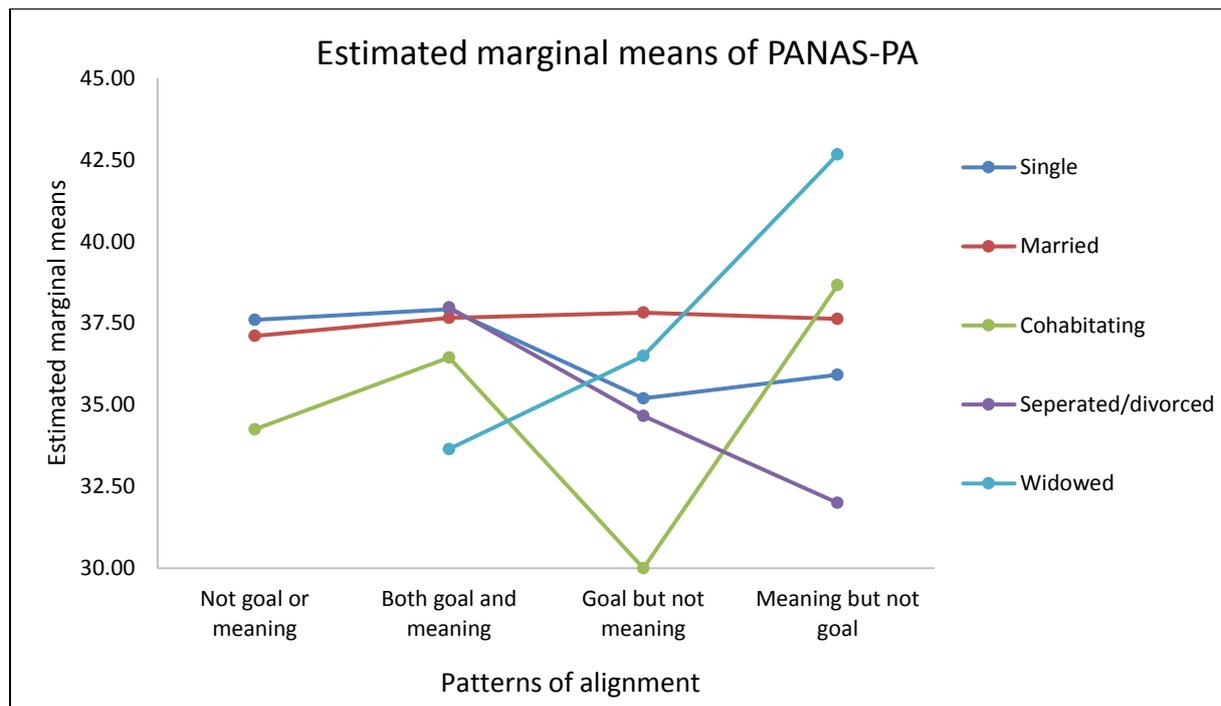


Figure B23. Interaction between the patterns of alignment and well-being as measured by PANAS-PA according to marital status

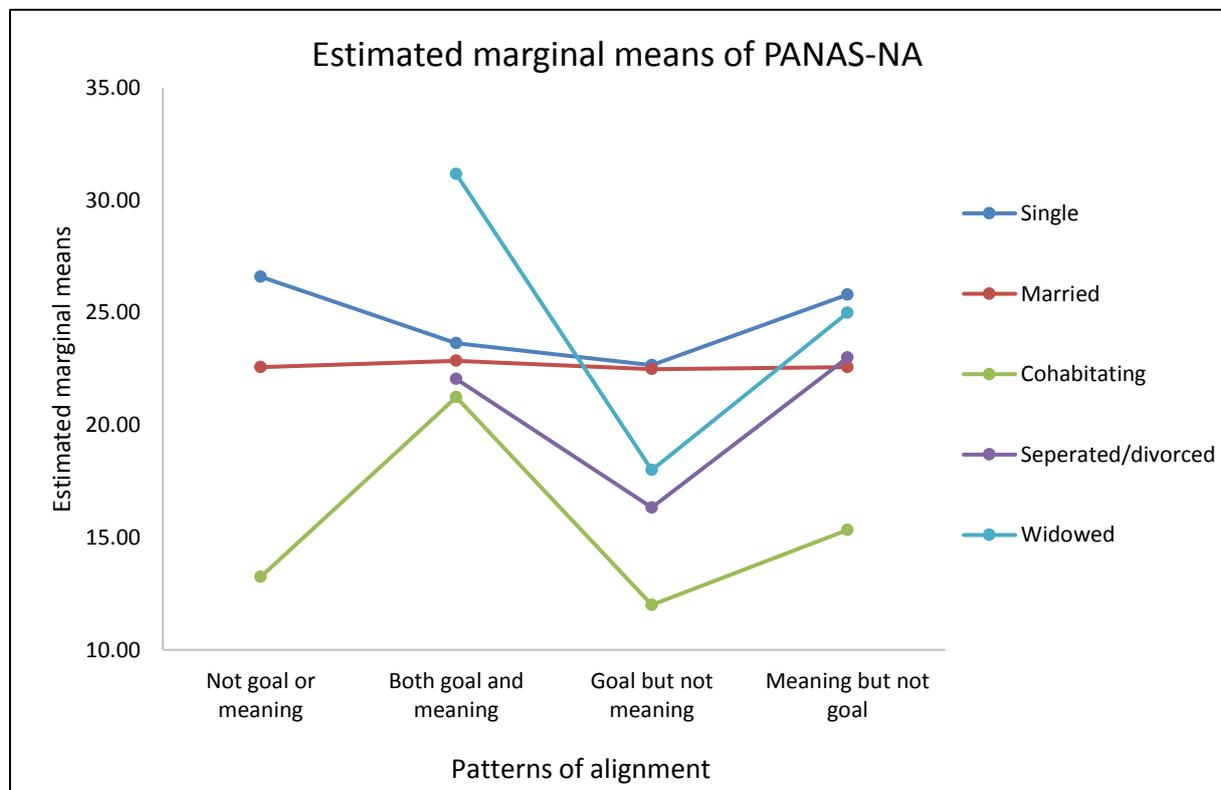


Figure B24. Interaction between the patterns of alignment and well-being as measured by PANAS-NA according to marital status

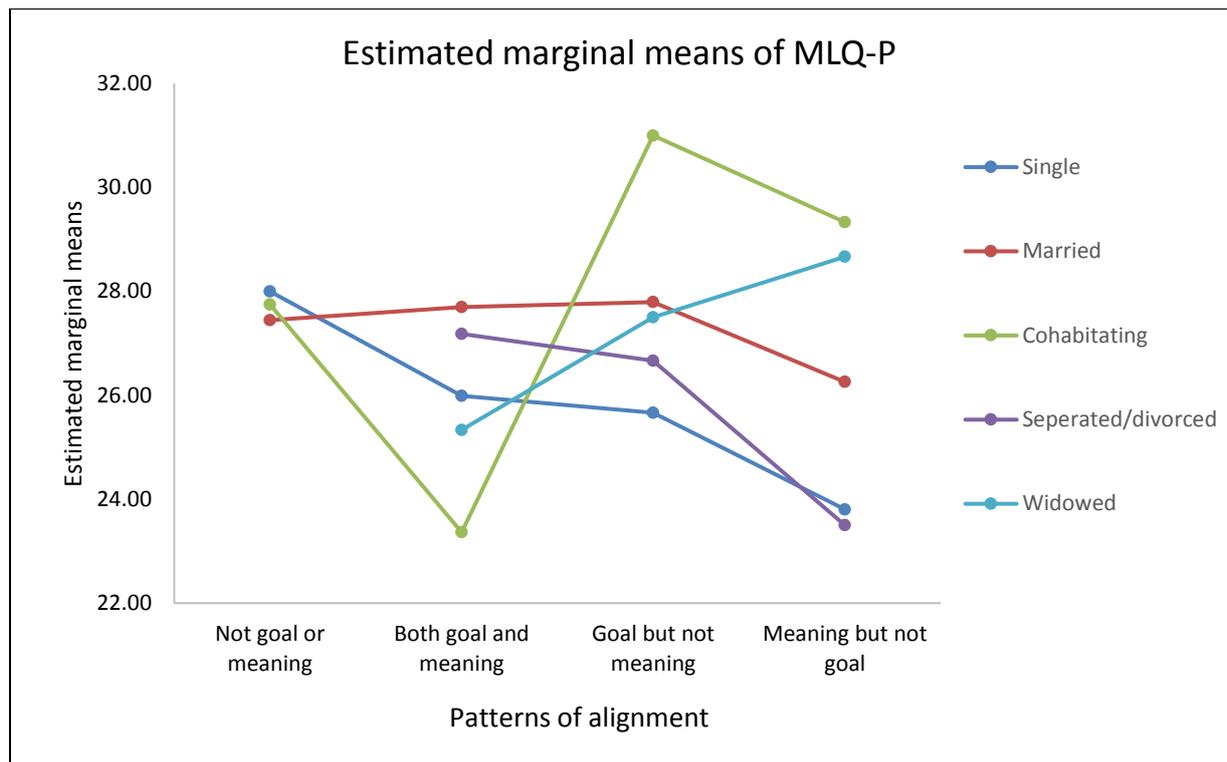


Figure B25. Interaction between the patterns of alignment and well-being as measured by MLQ-P according to marital status