HOPE AND WELL-BEING AMONG SOUTH AFRICAN ADULTS: A CORRELATIONAL ANALYSIS AMONG FOUR AGE GROUPS

by

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Declaration

I, **Emma Torr (20618248)** hereby declare that this dissertation **(Hope and well-being among South African adults: A correlational analysis among four age groups)** is my own work except where I used or quoted another source, which has been acknowledged and referenced. I further declare that the work that I am submitting has not previously been submitted before for another degree or to any other university or tertiary institution for examination.

Emma Torr

On the 3rd day of November 2022

Ethics Statement

I, **Emma Torr (20618248),** have obtained the applicable research ethics approval for the research titled **Hope and well-being among South African adults: A correlational analysis among four age groups** on 27 August 2020 (reference number: HUM048/0720) from the Faculty of Humanities Research Ethics Committee.

Abstract

With the development of the field of positive psychology, there has been growing interest in research on positive mental health and the development of psychological models to understand well-being. Research has consistently shown that hope is an important predictor for the well-being of individuals across different age groups, yet there is limited knowledge on individuals' sources of hope during different developmental periods. To address this gap, the main aim of the present study was to examine the associations between different sources of hope and the levels of hope and well-being amongst four age groups of South African adults. The specific objectives were (1) to compare the levels of dispositional hope, perceived hope and well-being across the four age groups; (2) to identify and compare the most important sources of hope and (3) to explore the relationships between specific sources of hope and the levels of dispositional hope, perceived hope and well-being. The present study was a secondary analysis of an existing South African data set, collected from the online Hope Barometer Survey in 2019 and processed using IBM SPSS statistics. The sample comprised a total of 465, with 132 participants in the emerging adulthood group, 137 in the early adulthood group, 141 in the middle adulthood group and 55 in the older adulthood group.

The results revealed that the four age groups reported similar levels of dispositional hope, perceived hope and well-being. Positive interpersonal relationships and religious experiences were considered the most important sources of hope by all four age groups. Social-relational experiences had the largest influence on the levels of dispositional hope, perceived hope and well-being amongst the emerging adulthood group. However, for both the early and middle adulthood groups, *personal mastery and hedonic experiences* was the strongest predictor of all three variables. While these findings are limited in their generalisability, the present study contributes towards bridging the knowledge gap surrounding the experiences that strengthen people's hope and enhance levels of well-being at different developmental stages.

Keywords: Dispositional hope; perceived hope; well-being; sources of hope; developmental stages

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Chapter 1: Background, Research Objectives and Overview

1.1 Background to the Study

In the last few decades, the development of positive psychology has prompted a shift in the focus and attitude towards research in psychology. Moving away from interventions rooted in the disease model, which are designed to repair psychological dysfunction, there is increasing interest in adopting methods that aim to identify and build personal and collective strengths (Seligman, 2002). The study of positive psychology centres around what constitutes a fulfilling life by examining factors that promote overall well-being and enable individuals to flourish (Moran & Nemec, 2013; Park & Chen, 2016; Seligman, 2002). A *good life* has been found to be associated with a combination of traits such as hope, optimism and resilience as well as positive experiences, including happiness, joy and love (Park & Chen, 2016; Seligman, 2002). Recently, research on the constructs associated with positive psychology has steadily increased. One such construct is hope.

During the past decade, a plethora of research throughout the world has been conducted on hope. The results have consistently revealed that hope is an important predictor of psychological well-being (Guse & Vermaak, 2011; Krafft & Walker, 2018b; Niebieszczanski et al., 2016). In the midst of a European economic crisis, the International Hope Barometer research program was initiated in Switzerland in 2009. To counteract the public discourse that centred around fear and negativity about the future, the purpose of the research program was to explore hope and other positive attitudes among the ordinary population. After publishing the results from their first study, the researchers from the Swiss Academy of Humanities and Social Sciences began collaborating with researchers worldwide to examine the levels, constructions and mechanisms of hope across culturally diverse settings (Krafft & Walker, 2018b). To date, the Hope Barometer survey is administered annually in 16 different countries, including South Africa (Krafft et al., 2018).

The present study is positioned within this larger project, employing data collected from South African adult participants in 2019.

1.2 Research Problem

Hope has become an increasingly prevalent construct researched within the field of mental health because it is largely considered an indispensable factor in facilitating recovery from illness and episodes of distress as well as promoting overall well-being (Eraslan-Capan, 2016; Hobbs & Baker, 2012; Munoz, Hanks, et al., 2019; Niebieszczanski et al., 2016; Park & Chen, 2016). Many studies have shown that hope is associated with a host of positive outcomes across psychological, social and cognitive domains throughout all stages of the human lifespan (Dwivedi & Rastogi, 2016; Krafft & Walker, 2018b).

The majority of studies have focused primarily on the outcomes of hope, exploring the construct as a transformative resource that predicts a happy, healthy life. While there appears to be a wealth of available knowledge related to the benefits of hope on overall levels of well-being, less is understood about the roots of hopeful thinking and psychosocial factors that predict hopefulness in various social and cultural contexts. Furthermore, to date, only a paucity of research has explored hope from the perspective of developmental psychology. Hence, while there is agreement amongst the research community that hope is an essential ingredient for well-being, there is a scarcity of knowledge related to how individuals *source* hope as well as how hope manifests differently during the course of the human lifespan.

In addition, the vast majority of studies on hope and its associated correlates have been conducted in Western countries. While there is a scarcity of research on hope in South Africa (Boyce & Harris, 2013), to date, such research has focused predominantly on comparing levels of hope across different economic, racial and/or socio-political divides (Boyce & Harris, 2013; Guse & Shaw, 2018; Guse & Vermaak, 2011). The findings of this limited research have

revealed that the South African adult population reported relatively high scores on a number of constructs such as perceived hope, harmony in life, gratitude, optimism and willingness to enjoy life (Guse & Shaw, 2018; Slezáčková et al., 2021; Wissing & Temane, 2013). One may question what are the predictors of hopeful thinking and main sources that are associated with positive outcomes of hope amongst South African adults.

Accordingly, the purpose of the present study was to explore where and how South African adults find and sustain hope in their daily lives. The broad research question was: What sources of hope predict dispositional hope, perceived hope and well-being at different developmental stages amongst a sample of South African adults?

1.3 Aim and Objectives of the Study

The broad aim of the study was to investigate the relationships between specific sources of hope and levels of overall hope and well-being across four age groups in South Africa. The three objectives of the present study were:

1. To determine and compare the levels of dispositional hope, perceived hope and well-being amongst four age groups in South Africa;
2. To identify and compare the most important sources of hope for South African adults across four age groups; and
3. To explore the relationships between specific sources of hope and levels of dispositional hope, perceived hope and well-being across four age groups in South Africa.

1.4 Operational Definition of Terms

1.4.1 *Hope*

Although the meaning of the construct of hope depends on the context in which it is used, it is generally defined as a positive expectation about future events and/or outcomes (Krafft & Walker, 2018b; Snyder, 2000b). In this study, hope was operationalised in accordance with the constructs of perceived hope (Krafft et al., 2019, 2021; Krafft & Walker, 2018a) and dispositional hope (Snyder, 2000b, 2002).

1.4.2 **Well-Being**

Well-being is understood to be a multi-faceted construct and incorporates a combination of feeling good, that is, hedonic well-being, and functioning well, namely, eudaimonic well-being. Optimal levels of well-being are an indication of flourishing and positive mental health (Guse & Shaw, 2018; Keyes & Annas, 2009; Seligman, 2011). In this study, The Mental Health Continuum Short Form (MHC-SF) was employed to measure well-being (Keyes, 2009).

1.4.3 **Developmental Stage**

A developmental stage is a period or stage of life, which is typically defined by certain needs, behaviours, experiences and/or tasks that are specific to one particular phase of human development. Although developmental stages are most commonly defined by age, in certain cultures they may be determined by event-related markers such as marriage, financial independence and traditional rites of passage (Chopik et al., 2018; Robinson, 2020).

1.4.4 **Sources of Hope**

Sources of hope refer to the roots of hopeful thinking, including the personal experiences, places, relationships and activities that foster or maintain a sense of hopefulness (Krafft & Walker, 2018b). In this dissertation, this term is used interchangeably with *hope providers* and *loci of hope*.

1.5 Outline of the Dissertation

In this chapter, the background to the study was described and the research problem introduced. Furthermore, the aim and objectives of the study were outlined and key terms employed throughout the dissertation were defined operationally. In the second chapter, the theoretical constructions of hope and well-being are reviewed and existing research on sources of hope and their associations with levels of hope and well-being are discussed. Finally, developmental and contextual factors related to these variables are also explored in Chapter 2. The research methodology that was employed in the study is outlined in Chapter 3. While the findings are presented and interpreted in Chapter 4, these are discussed in relation to previous research findings in Chapter 5. The main findings are summarised in Chapter 6. Finally, the limitations of the study and recommendations for future research are also provided in the sixth chapter.

Chapter 2: Literature Review: Hope and well-being in developmental context

2.1 Chapter Overview

In this chapter, the theoretical conceptualisations of hope are first discussed. Two facets of hope, namely, dispositional hope (Snyder, 2000b) and perceived hope (Krafft et al., 2018) are explored. Subsequently, empirical findings on the role of hope during times of adversity are reviewed. Thereafter, the different theoretical perspectives on well-being including the hedonic and eudaimonic perspectives, which together culminate together in Keyes' (2002) model of complete mental health, are discussed. Research on the relationship between hope and well-being is also explored. This is followed by a review of the literature related to sources of hope and their associations with levels of hope and well-being. Finally, hope, well-being and sources of hope are discussed from a developmental perspective, highlighting findings across four developmental stages of adulthood. A brief review of research conducted on hope in the South African context concludes the chapter.

2.2 Hope

The uniquely human phenomenon of *hope* is an area of research that has generated considerable interest throughout history, across multiple different disciplines, including theology, philosophy, sociology and psychology (Krafft & Walker, 2018b). Within the social sciences, hope is generally understood as a positive expectation and/or desire for a future outcome (Krafft & Walker, 2018b; Slezáčková & Krafft, 2016). However, there are considerable differences in theoretical models, relating to the core elements of hope and the qualities that differentiate it from other constructs such as optimism, within and across different knowledge traditions (Krafft et al., 2019; Krafft & Walker, 2018a). These differences are not only limited to the confines of academia. Rather, hope is also defined and employed in various

ways in accordance with religious, political and cultural contexts (Krafft & Walker, 2018b; Slezáčková & Krafft, 2016).

Accordingly, Dufault and Martocchio (1985) described hope as a multidimensional construct, which comprises six dimensions: affective, cognitive, behavioural, affiliative, temporal and contextual. While the affective dimension is related to emotions and sensations inherent in the experience of hope, the cognitive dimension is concerned with specific thought processes (Dufault & Martocchio, 1985; O'Hara, 2013). The behavioural dimension refers to the actions taken to achieve a goal and the affiliative dimension relates to hope in relationships, including connections with other people, nature and/or the spiritual world. The manner in which the past, present and future frame experiences of hope is considered in the temporal dimension (Dufault & Martocchio, 1985; O'Hara, 2013; Slezáčková & Krafft, 2016). Finally, the contextual dimension focuses on the notion that objects of hope are activated in the context of specific life situations and circumstances such as an individual's developmental stage. Hence, Dufault and Martocchio's (1985) framework demonstrates that hope is influenced by multiple different interacting factors and is therefore enacted through multiple processes.

Drawing from this model, the field of positive psychology emphasises four core facets of hope: hopeful thinking, a positive emotional experience, a character strength and a transcendental phenomenon (Slezáčková, 2017; Slezáčková & Krafft, 2016). In attempts to measure this multidimensional construct of hope, researchers in positive psychology have relied on a range of different theories, which each prioritise different dimensions of this broad definition of hope. The Hope Barometer Project distinguishes between two central constructions of hope: dispositional hope and perceived hope (Slezáčková & Krafft, 2016).

2.2.1 Dispositional Hope

In Snyder's (2000b) theory, hope is defined as both a cognitive construct and personality trait (Krafft et al., 2021). The theory is based on the underlying assumption that hope is derived

from possessing self-direction and a clear set of goals (Krafft & Walker, 2018a; Tong et al., 2010). Snyder (2000b) noted that hope is regarded as a positive mind-set involving two components: the subjective belief in one's own efficacy to initiate actions to attain a desired goal (pathways) as well as the capacity and motivation to generate the means to realise the goal (agency) (Krafft et al., 2019; Snyder, 2000b; Tong et al., 2010). In other words, hope comprises goal-directed energy (agency) as well as the capacity for goal planning (pathways) (Snyder, 2002). The combination of both of these components enables individuals to think about their goals and act towards reaching those goals (Tong et al., 2010).

Snyder (2002) described hopeful individuals as ambitious, self-confident and determined to achieve their goals (Krafft & Walker, 2018a). People with higher levels of dispositional hope are able to devise realistic plans to realise their goals and remain driven to seek alternative routes to achieve their goals when they encounter difficulties. The theory suggests that hopeful people typically have enduring positive emotions and are less likely to perceive impediments as highly stressful (Snyder, 2002). On the contrary, those with lower levels of dispositional hope are more susceptible to negative emotions because they tend to be less confident in their abilities to achieve their goals. Consequently, they are less motivated to set specific goals and/or embark on goal-seeking behaviour. Hope is therefore linked to people's perceptions of the control that they possess and the means to execute their control (Bai et al., 2017).

Dispositional hope has been examined in a diverse range of studies and has become one of the most reported theories in hope literature (Boyce & Harris, 2013; Slezáčková et al., 2018). However, despite its wide reach, researchers have criticised Snyder's (2000b) theory for its narrow, homogenous construction of hope and for failing to consider other dimensions of hope such as the influence of spirituality (Guse & Shaw, 2018; Krafft et al., 2019). Others have highlighted its conceptual similarities to other constructs, including self-efficacy (Krafft et al.,

2019). To address the limitations of Snyder's (2000b) theory, Krafft et al. (2019) proposed the broader concept of perceived hope.

2.2.2 Perceived Hope

Krafft et al. (2019) identified the need for a new theory that encompasses how individuals define hope in their lives. Accordingly, perceived hope is understood to be a sense of trust that everything will work out well. Furthermore, it is related primarily to the emotional, relational and spiritual dimensions of hope (Guse & Shaw, 2018; Krafft & Walker, 2018a; Slezáčková, 2017; Slezáčková et al., 2018). The model is concerned with people's individual perceptions and subjective experiences of hope, without considering the underlying mechanisms of the hoping process (Krafft et al., 2021). The theory emphasises that hope is distinct from goals and expectations, which are central to the construction of dispositional hope.

Krafft et al. (2021) explained that while expectancies are based on estimated probability, hope carries an emotional quality, which is connected to the desire for an outcome, irrespective of its likelihood. In other words, perceived hope is related to a positive attitude towards the future, even if expectations are low or when the *hoping* individual has no control over the outcome (Krafft et al., 2021; Slezáčková et al., 2018). For example, individuals may experience altruistic hope for other people who are suffering from a chronic condition, while simultaneously acknowledging that they are not personally in control of minimising the suffering (Tong et al., 2010). The theory posits that hope may be linked to a belief or trust in something greater than oneself. Hence, perceived hope encompasses the transcendental, spiritual aspects of hope that enable individuals to remain optimistic in difficult and uncertain life situations (Guse & Shaw, 2018; Slezáčková, 2017). Due to the recency of the theory, research on perceived hope remains limited. However, existing studies have found it is associated with constructs such as meaning in life, gratitude, optimism, life satisfaction and positive affect (Guse & Shaw, 2018; Krafft et al., 2021).

In essence, many different theoretical frameworks have conceptualised hope. Furthermore, the concept has consistently been associated with an infinite list of positive outcomes (Slezáčková et al., 2018; Slezáčková & Krafft, 2016). Hope in relation to coping with adversity is an area of research that has been particularly well documented in the literature. In the following section, the core findings of these studies are summarised.

2.2.3 Empirical Findings on Hope in Times of Adversity

2.2.3.1 Hope in Crises. Debates in psychology related to how individuals deal with crises and whether adaptive coping is determined by fear responses or positive emotions such as hope abound (Marciano et al., 2022; Tannenbaum et al., 2015). While one perspective has highlighted that in the context of threatening situations, fear is the strongest predictor of survival behaviours, another perspective has posited that coping in crises is largely determined by individuals' hope and belief in their ability to overcome the challenge (Marciano et al., 2022). Marciano et al. (2022) compared the effects of hope and fear on adaptive coping outcomes during the Covid-19 pandemic and armed conflict in Israel. The results revealed that, when faced with adversities, hope was a stronger predictor of coping than fear (Marciano et al., 2022). Similar findings were reported amongst individuals who had experienced isolated traumatic events in which hope was associated with an increased sense of empowerment as well as factors such as self-control, grit and psychological flourishing (Hellman & Gwinn, 2017; Munoz, Hanks, et al., 2019).

2.2.3.2 Hope and Recovery from Physical Illness. Encouraging findings have been reported from research in the area of hope and treatment of physical illness such as cancer and chronic diseases (Garrard & Wrigley, 2009; Sabanciogullari & Yilmaz, 2021; Snyder, 2000b; Wiles et al., 2008; Yucens et al., 2019). Multiple beneficial effects have been reported, ranging from the psychological benefits of maintaining hope in the context of physical illness to an array of physical health benefits (Duggleby et al., 2012; Garrard & Wrigley, 2009; Hillbrand & Young,

2008; Wiles et al., 2008). Long et al. (2020), in a longitudinal study on predictors of physical health amongst older adults, revealed that higher levels of hope were associated with a 16% lower risk of all-cause mortality, 12% reduced probability of cancer, 11% reduced probability of chronic pain and 12% reduced probability of sleeping problems. Researchers have suggested that the improved physiological outcomes associated with higher levels of hope are due to the likelihood of engaging in healthy coping mechanisms and adhering to medical treatment (Hillbrand & Young, 2008; Yucens et al., 2019).

2.2.3.3 Hope and Psychological Distress. Literature has identified hope as an indispensable factor in facilitating recovery from mental illness (Acharya & Agius, 2017; Hillbrand & Young, 2008; Nicholls et al., 2016). Higher levels of hope have been shown to mitigate depressive symptoms and functional impairment in both early and later adulthood (Dwivedi & Rastogi, 2016; Hirsch et al., 2011; Huen et al., 2015; Lowell et al., 2017). Researchers have suggested that recovery from disorders such as major depressive disorder, anorexia nervosa and schizophrenia is dependent on the idea that the individual wants to get better and believes in hope for a better future (Acharya & Agius, 2017; Huen et al., 2015; Nicholls et al., 2016). Acharya and Agius (2017) did not describe hope as a transformative quality that transcends other practical factors that are instrumental to recovery such as adherence to treatment or access to support networks. Rather, they noted hope is a guiding principle, which allows individuals to believe in the possibility of living a fulfilling life after recovery and therefore provides the motivation towards behavioural change.

Conversely, low levels of hope are associated with increased vulnerability to developing mental health problems, such as anxiety, depression or posttraumatic stress disorder (Long et al., 2020). The loss of hope is also one of the most common risk factors for suicidal behaviour (American Psychiatric Association, 2013; Beck et al., 1989; Brown et al., 2000; Hernandez & Overholser, 2021). In a pioneering ten-year prospective study, Beck et al. (1989) found that

hopelessness was a significant predictor of future successful suicides. In the 20-year follow up, it was reported that patients who scored 9 or above on the Beck's Hopelessness Scale (1988), were four times more likely to commit suicide within the following 12 months, compared to those with lower scores (Brown et al., 2000).

2.2.3 Conclusion

In summary, hope is considered to be a multidimensional construct, which is used and understood in many different ways depending on a variety of social and cultural factors (Slezáčková, 2017; Slezáčková & Krafft, 2016). While Snyder's (2002) conceptualisation of dispositional hope refers primarily to the cognitive and goal-oriented aspects of hope, Krafft et al. (2019) described perceived hope in relation to spiritual and relational components involved in the hoping process. The research discussed highlights the value of hope in helping individuals cope with adverse life events as well as being imperative in the treatment of physical and mental illness. In addition to highlighting the importance of hope in the context of hardship, the literature has posited that hope is an instrumental factor in the promotion of overall well-being, which is subsequently detailed.

2.3 Well-Being

Since the beginning of the positive psychology movement, which Dr Martin Seligman initiated in the late 1990s, the field has grown exponentially and undergone considerable development in relation to its theories and methods (Donaldson et al., 2015; Seligman, 2011). Seligman's (2002) original theory placed happiness at the epicentre of his work. However, his more recent theory proposes that "the topic of positive psychology is well-being" (Seligman, 2011, p. 33). Generally, well-being refers to optimal levels of human functioning and subjective experiences (McMahan & Estes, 2010). However, the criteria for what constitutes optimal functioning has been largely debated by both philosophers and psychologists. Most

definitions appear to be grouped into one of the two broad perspectives of well-being, namely, the hedonic and eudaimonic perspectives (Huta & Waterman, 2014; Kashdan et al., 2008; McMahan & Estes, 2010).

2.3.1 The Hedonic Perspective

The hedonic perspective refers to subjectively defined positive mental states such as happiness, enjoyment and satisfaction (Keyes, 2013). Therefore, optimal functioning is determined by experiences of pleasure (McMahan & Estes, 2010). Diener's (1984) model of subjective well-being (SWB) follows the hedonic tradition, defining SWB as the subjective experience of a happy, satisfying life, with high levels of positive affect and low levels of negative affect (Chen et al., 2013; Huta & Waterman, 2014; Keyes & Annas, 2009). SWB focuses on individuals' evaluation of their level of happiness and subjective enjoyment of life in general (Diener, 1999). It is related to both elements of intuitive experience or affect and the cognitive appraisal of life satisfaction (Diener, 1999; Pleeging et al., 2021). The model postulates that life satisfaction is reached when individuals evaluate their lives as a whole positively and are content with specific domains of their individual lives (Guse et al., 2019). Hence, from this perspective, well-being is viewed as the degree to which an individual *feels good about life*, both in relation to subjective emotional experiences and general satisfaction (Guse et al., 2019; Keyes, 2013).

2.3.2 The Eudaimonic Perspective

On the contrary, the eudaimonic perspective is concerned with positive functioning and the pursuit of human potential (Keyes, 2013). The eudaimonic tradition considers a good life to be one that aligns with an individual's internal virtues and long-term goals (Huta & Waterman, 2014; Kashdan et al., 2008). Accordingly, optimal functioning is measured by the realisation of specific psychological needs. Eudaimonic theories posit that certain experiences that provide momentary pleasure may objectively not be *good* for an individual such as eating

fast food (McMahan & Estes, 2010). In other words, the eudaimonic perspective highlights the importance of incorporating moral and ethical values into the definition of well-being (Wong, 2011). Ryff's (1989) psychological well-being (PWB) model draws from this perspective and accordingly PWB is conceptualised as the actualisation of an individual's full potential and meaning in life (Chen et al., 2013; Keyes & Annas, 2009; Ryff, 1989). PWB comprises six elements, which are related to specific challenges encountered in the pursuit of positive goals, namely, autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance (Chen et al., 2013; Ryff, 1989). Thus, Ryff's (1989) model regards well-being as the perception of the *quality* with which individuals function in multiple domains in their lives (Huta & Waterman, 2014; Keyes, 2013; Ryff, 1989).

Keyes (1998) proposed an additional element to those in Ryff's (1989) model of PWB, namely, social well-being. Keyes (1998) noted that the SWB and PWB models constructed well-being as a private phenomenon in which optimal functioning is evaluated according to personal criteria (Keyes, 2002). However, Keyes (1998) contested that well-being is also evaluated through social criteria. Social well-being consists of the following five elements: social coherence, which encompasses viewing the social world as comprehensible and meaningful; social actualisation, which is the belief in the potential for growth in society; social integration, which refers to feeling a sense of belonging and community; social acceptance, which entails tolerating social diversity; and social contribution, which encompasses being satisfied by one's own contribution to society (Keyes, 1998, 2002, 2013). In other words, social well-being refers both to how individuals perceive the functioning of society as well as their evaluations of their own participation in the social world (Keyes, 2013).

Although there has been considerable debate over these two competing perspectives (Chen et al., 2013), researchers have recently argued that well-being is a multidimensional construct, which encompasses both hedonic and eudaimonic perspectives (Chen et al., 2013;

Guse & Shaw, 2018). Keyes (1998) advocated strongly for this integrated approach to the conceptualisation of well-being, which is reflected in his model of complete mental health.

2.3.3 The Model of Complete Mental Health (CMH)

Keyes (2002, 2005, 2009) emphasised that psychology's understanding of mental health has traditionally centred around binary classifications of mental illness, thus equating mental health with the absence of psychopathology. Proposing an alternative model of complete mental health (CMH), he argued that mental illness and mental health are not at opposite ends of a single bipolar health spectrum, but rather constitute separate but inversely correlated continuums (Keyes, 2005; Keyes & Lopez, 2002). Thus, mental health is more than simply the absence of severe mental illness, but rather understood as its own syndrome, defined by symptoms and levels of well-being (Keyes & Lopez, 2002). The model adopts a holistic view of well-being, incorporating elements of emotional, psychological and social well-being. While emotional well-being refers to the hedonic aspects of well-being outlined by Diener (1984, 1999), psychological and social well-being encompass different components of eudaimonic well-being, reflected through Ryff (1989) and Keyes' (1998) models, respectively. In his model of CMH, Keyes (2002, 2005, 2009) posited that well-being comprised all three elements. This model was employed to conceptualise well-being in the current study.

In addition, Keyes (2002, 2005, 2009) proposed that mental health and mental illness exist along a spectrum of functioning, ranging from incomplete to complete. At one end of the mental illness spectrum, *floundering* individuals (complete mental illness) are diagnosed with a mental illness and lack symptoms of psychosocial well-being. However, at the opposite end, individuals who are described as *struggling in life* (incomplete mental illness), display symptoms of psychosocial well-being but also present with a mental illness (Keyes & Lopez, 2002). Alternatively, along the mental health continuum, *languishing* individuals (incomplete mental health) do not currently present with a mental illness, but display low levels of

psychosocial well-being (Keyes & Lopez, 2002). These individuals are typically unsatisfied with their lives and are not working towards their goals in life (Venning et al., 2013). On the contrary, *flourishing* individuals (complete mental health) present with high levels of psychosocial well-being and an absence of mental illness. The model indicates that flourishing individuals have high levels of positive affect, a sense of meaning and feel fulfilled in all areas of their lives (Keyes & Lopez, 2002). Keyes (2005) indicated that languishing may be equally as dysfunctional to an individual's life as an episode of mental illness. He further highlighted the need for positive therapeutic interventions designed for non-clinical populations that focus on well-being enhancement (Hides et al., 2020; Keyes & Lopez, 2002). Applied to the therapeutic context, the CMH model offers an alternative approach to traditional pathology focused treatment models that centre on repairing dysfunction.

As discussed previously, the importance of instilling hope in the treatment of mental illness has been well established in the literature (Acharya & Agius, 2017; Hernandez & Overholser, 2021; Hillbrand & Young, 2008; Nicholls et al., 2016). However, there is a growing body of research that has revealed that hope also acts as a protective factor against psychological conditions and is a valuable resource for the promotion of well-being amongst the general population (Daugherty et al., 2018; Leontopoulou, 2015; Mongrain & Anselmo-Matthews, 2012; Seligman et al., 2005). The empirical findings from studies that have examined the role of hope in the promotion of well-being are subsequently summarised.

2.3.4 Empirical Findings on Hope and Well-Being

A plethora of literature has revealed consistently that hope is positively correlated with an exhaustive list of well-being markers, ranging from happiness and life satisfaction to achievement oriented factors such as academic and job performance (Ciarrochi et al., 2015; Guse & Shaw, 2018; Kivlighan et al., 2018; Krafft & Walker, 2018b; Pleeging et al., 2021; Yotsidi et al., 2018). On the contrary, low levels of hope have been associated with negative

emotional states and indicators of maladjustment. Ciarrochi et al. (2015), in a six-year longitudinal study that investigated hope and emotional well-being amongst adolescents, found that dispositional hope was an antecedent of positive affect, rather than a by-product of pleasurable experiences. Ciarrochi et al. (2015) also indicated that individuals with higher levels of hope were better equipped to cope with stressful events and adjust to transitions in their lives. Research with both children and adult participants has yielded comparable findings, identifying hope as an important predictor of emotional well-being (Guse & Shaw, 2018; Hernandez & Overholser, 2021; Kirby et al., 2021; Leontopoulou, 2015; Perrig-Chiello et al., 2018; Scioli et al., 2016).

Moreover, the benefits of hope have been found to extend beyond the boundaries of hedonic well-being in that researchers have reported strong correlations between hope and eudaimonic aspects of well-being. Venning et al. (2013) found that dispositional hope was positively correlated with improved mental health and negatively correlated with indicators of mental illness in a sample of Australians (Venning et al., 2013). While the majority of the current literature centres on Snyder's (2000b) conceptualisation of dispositional hope, a growing body of research on perceived hope has revealed similar findings. Visser and Law-van Wyk (2021), who explored mental health amongst university students during the Covid-19 pandemic in South Africa, concluded that perceived hope was the most important predictor of psychosocial well-being rather than other factors such as social connectedness and financial security.

On the contrary, some studies have highlighted that in certain instances, overly optimistic views towards the future may have a negative impact on general well-being (Pleeging et al., 2021). For example, research investigating hope in the context of palliative care has revealed that unrealistic hopes for a particular outcome can have a negative influence on both patients' and their family members' well-being (Corrigan, 2014; Taylor, 2012). In addition, hope for

materialistic goals has been associated with lower levels of happiness because these aspirations typically suggest a degree of dissatisfaction with life (Pleeging et al., 2021; Van Boven, 2005). Moreover, Ojala (2012) who examined the role of hope in pro-environmental behaviour found that illusory hope related to climate change led to a lack of motivation to engage in such behaviour, thus affecting aspects of social well-being negatively. Thus, it appears that the benefits of hope in relation to well-being markers is contingent on setting realistic expectations. It also implies that it is crucial to consider all dimensions of well-being by examining aspects of individual functioning in the context of broader social structures (Keyes, 1998).

Various explanations have been proposed for the relationship between hope and well-being. The cognitive motivational construct of dispositional hope suggests that well-being is achieved because of the happiness experienced after individuals realise their goals successfully (Guse & Shaw, 2018; Pleeging et al., 2021). This theory implies that meaning is generated through having and pursing meaningful goals and therefore higher levels of dispositional hope are associated with a greater sense of meaning in life, thus emphasising thus emphasising the importance of an individual's actions and internal resources (Guse & Shaw, 2018; Snyder, 2000b). On the contrary, perceived hope is related more broadly to the spiritual aspects of hope and speaks more closely to the idea of connection with something beyond the self. Higher levels of perceived hope are associated with well-being through the search for purpose in life, thus highlighting the transcendental aspects of hope (Guse & Shaw, 2018; Hernandez & Overholser, 2021).

2.3.5 Conclusion

Defining the multidimensional construct of well-being is critical to the study of positive psychology and has led to much disagreement amongst researchers in the field. While the hedonic perspective encompasses aspects of well-being related to *feeling good* such as positive affect and life satisfaction, the eudaimonic perspective is related to *functioning well* and finding

meaning in life (Chen et al., 2013). Keyes' (2002, 2005, 2009) recent model of complete mental health integrates both perspectives, incorporating elements of emotional, psychological and social well-being. While the relationship between dispositional hope and the hedonic aspects of well-being has been well established, very few studies have included perceived hope and eudaimonic components of well-being in their findings. In addition, while it is generally accepted that hope precipitates well-being, there is a paucity of knowledge related to the antecedents of hope itself. Understanding what gives people hope for the future is imperative when designing interventions to enhance levels of well-being. The current understanding of the sources of hope is explored in the following section.

2.4 Sources of Hope

With the popularisation of hope research, there has been increased interest in employing hope theory and other principles in positive psychology in the therapeutic process (Daugherty et al., 2018; Edwards & McClintock, 2013; Leontopoulou, 2015; Lopez et al., 2004). Adopting Snyder's (2000b) cognitive theory, Lopez et al. (2004) proposed several intervention strategies for accentuating levels of hope by focusing primarily on re-defining goals and mapping out pathways for goal attainment. This approach assumes implicitly that the agent of change lies solely within the hoping individual's internal resources (Bernardo, 2010; Lopez et al., 2004). Researchers have critiqued this model for disregarding the potential role that other people or belief systems may play in generating and/or maintaining hopefulness (Bernardo, 2010; Dargan et al., 2021; Gaeeni et al., 2014; Munoz, Hanks, et al., 2019).

Bernardo (2010) stated that the process of goal attainment may also involve the participation of external agents such as family members, peers and spiritual connections. He proposed that, while individuals who rely on an internal locus of hope consider themselves as being solely responsible for reaching their goals, those who rely on external loci of hope deem

that significant others and spiritual forces play an influential role in the process (Bernardo, 2010; Du & King, 2013). A few quantitative studies, which have employed this theory, have found consistently that the locus of hope dimensions predicted unique variance on a number of dependent variables that assessed different outcomes of psychological adjustment (Bernardo & Nalipay, 2016; Bernardo et al., 2018; Dargan et al., 2021; Du & King, 2013; Munoz, Quinton, et al., 2019). These results imply that differences in levels of hope and well-being may be partly explained by differences between internal and external hope providers.

While Bernardo (2010) classified spiritual beliefs as an external source of hope, Gaeeni et al. (2014) who conducted a study in Iran described spirituality as an internal source due to its inherently private nature. Thus, it appears that hope providers may be activated in various ways for different people, thus suggesting that Bernardo's (2010) binary classification may be limiting. Accordingly, Krafft and Walker (2018a) adopted a broader approach and posited that hope is sourced from a multitude of different experiences, which have different meanings for every individual. Krafft and Walker (2018a) found that amongst participants from Germany and Switzerland, social relationships were the most commonly appraised sources of hope. Similarly, in a qualitative study that explored hope in forensic mental health settings, Hillbrand and Young (2008) revealed the value of interpersonal connections fostered through group psychotherapy (Yalom & Leszcz, 2008). Hillbrand and Young (2008) deemed that through the compassionate care received in the group and from the experience of having other people believe in the possibility of recovery from mental illness, the structure of the group provided hope for patients. Their findings suggest that hope is a shared project, which is strengthened through positive human interactions.

Other studies have emphasised the value of faith and spirituality in both generating and maintaining levels of hope (Beng et al., 2020; Bernardo et al., 2018; Sabanciogullari & Yilmaz, 2021; Wissing et al., 2020). Beng et al. (2020) found that religion was identified as a vital

source of hope among palliative care patients. Similarly, Sabanciogullari and Yilmaz (2021) revealed positive religious practices assisted Turkish cancer patients to cope with the disease, thus enabling them to remain hopeful during treatment. In addition, literature has noted that hope is derived from experiences of mastery in which individuals feel a sense of control and empowerment (Bernardo et al., 2018; Scioli et al., 2016). Nell (2014) found that South African university students perceived education and achievement related factors to be important sources of meaning in life and hope for the future.

To realise an enhanced understanding of how these sources of hope are related to positive psychological outcomes, it is important to examine research on the relationships between hope providers and different measures of hope and well-being. The empirical findings between sources of hope and levels of hope and well-being are captured in the following section.

2.4.1 Empirical Findings on Sources of Hope and Levels of Hope

Depending on various factors, it has been suggested that hope may be sourced from a variety of different experiences. However, not much is known about which categories of appraised hope providers are associated with higher levels of hopefulness (Garcia & Sison, 2013; Krafft & Walker, 2018a; Slezáčková et al., 2018). Krafft and Choubisa (2018) examined the correlates of hope in India and found that the *self* was the most commonly appraised source of hope and strongest predictor of perceived hope. In relation to the activities individuals perform to achieve their personal hopes, the study further revealed that the participants highly valued cognitive activities such as thinking, analysing and researching (Krafft & Choubisa, 2018). However, the authors demonstrated that practices of prayer and meditation as well as social interactions were associated with the highest levels of perceived hope. In a similar study, Krafft and Choubisa (2018) reported that German participants evaluated friends and family members as the most common providers of hope and perceived social interactions as the most highly valued activity in the pursuit of hope. However, regression analyses suggested

alternative conclusions, in which religious leaders and exercises of internal motivation were the most significant predictors of perceived hope (Krafft & Choubisa, 2018) In addition to highlighting potential cultural differences related to hope, these findings demonstrated that certain hope providers are more closely associated with higher levels of perceived hope than others (Krafft & Walker, 2018a).

Although explanations have been proposed by other researchers, there is a limited body of research in this area (Krafft & Walker, 2018a; Slezáčková et al., 2018). In addition, to the best of the researcher's knowledge, no empirical studies have compared different sources of hope in relation to levels of dispositional hope. Bernardo (2010) proposed that this may be because dispositional hope has traditionally been exclusively conceptualised as an internal resource. The lack of knowledge in this area suggests the importance of examining the relationships between sources of hope and levels of perceived and dispositional hope.

2.4.2 Empirical Findings on Sources of Hope and Well-Being

In his influential writing on hope in times of despair, Viktor Frankl (1992) proposed that hope is derived from and maintained by experiences that provide meaning in life (Wnuk, 2022; Yalçın & Malkoç, 2015). He emphasised how spirituality and religion provided a sense of hope and meaning for the prisoners in Nazi concentration camps during the Second World War, which, in turn, affected levels of well-being (Frankl, 1992). Applying Frankl's theory to research with cancer patients in Poland, Wnuk (2022) found that spiritual experiences were indirectly related to higher levels of well-being through pathways of hope and meaning in life. Wnuk (2022) posited that hope is activated by values and experiences that have personal meaning to the individual, which, in turn, influences overall well-being. Accordingly, Wnuk (2022) described spiritual experiences as a source of hope for those patients who found meaning and purpose in spirituality and further hypothesised that others may source hope through secular factors such as social relationships.

Employing Keyes' (2002, 2005, 2009) model of complete mental health, Wissing et al. (2021) examined the differences between the nature and dynamics of relationships amongst individuals in both flourishing and languishing states. The findings revealed that, while flourishing individuals emphasised the value of mutually supportive relationships, languishing individuals focused primarily on their own needs of support from interpersonal connections (Wissing et al., 2021). These findings suggest that it is not only the social interactions themselves that are important but also the reciprocal nature of support in these relationships and mutual reliance that is associated with optimal levels of well-being. Similarly, using Bernardo's (2010) locus-of-hope model, Wagshul (2019) explored factors related to acquired capability for suicide. The results demonstrated that the likelihood of individuals with suicidal ideation actualising their plans was lower among individuals who relied primarily on external loci of hope in comparison to those who solely sourced hope internally (Wagshul, 2019). The findings reinforce the idea that spiritual and interpersonal relationships are important factors in the promotion of well-being.

However, other studies have reported contradictory findings. Bernardo et al. (2018) found that, in comparison to external loci of hope, an internal locus-of-hope was a stronger predictor of well-being indices among students from different universities across Asia. In addition, Du and King (2013) revealed that spiritual loci-of-hope (external) were negatively associated with psychological adjustment. The lack of consistency amongst these results highlights the need for further research in this area.

2.4.3 Conclusion

In conclusion, researchers have increasingly noted the need to understand where and how individuals derive and maintain hope in their lives. The literature has reported a handful of common hope sources, including internal resources (e.g., Snyder, 2000b), social relationships (e.g., Bernardo & Nalipay, 2016; Hillbrand & Young, 2008; Krafft & Walker, 2018a), spiritual

connections (e.g., Beng et al., 2020; Sabanciogullari & Yilmaz, 2021; Wissing et al., 2020) and experiences of mastery (Bernardo et al., 2018; Nell, 2014; Scioli et al., 2016). A paucity of research has attempted to explore how these sources influence psychological outcomes. Furthermore, there appears to be a lack of consistency amongst these studies in relation to which sources are the strongest predictors of hope and well-being. While some researchers have proposed that some of this variance may be explained by differences in how individuals find meaning in their lives (Krafft & Choubisa, 2018; Wnuk, 2022), others have attributed it to demographic differences between participant samples such as age-related factors (Krafft & Walker, 2018b; Perrig-Chiello et al., 2018). Accordingly, the relationships between meaning in life, hope and well-being at different developmental stages are explored in the following section.

2.5 Hope and Well-Being in Developmental Context

According to Viktor Frankl, the definition of what constitutes a meaningful life changes throughout an individual's lifespan (Yalçın & Malkoç, 2015). He asserted that it is more relevant to discuss meaning in life in relation to specific developmental stages. Important concepts in developmental stage theory that are relevant to this study are subsequently outlined before applying this to research findings related to hope and well-being.

2.5.1 Developmental Stage Theory

Theorists have highlighted that different life phases are generally marked by specific age-related roles or tasks, which can be organised into developmental stages (Butkovic et al., 2020; Erikson, 1968; Havighurst, 1972). Erik Erikson's (1968) writing on psychosocial human development, which is arguably one of the most influential theories in developmental psychology, is still widely applied. His theory emphasised the importance of the social environment in shaping an individual's identity, suggesting that personality is in a process of

continual development throughout the lifespan (Erikson, 1968; Robinson, 2020). He suggested that development occurs in a particular sequence and that each stage or *crisis*, is dependent on the resolution of the previous developmental phase. According to his theory, the first crisis faced during infancy involves the negation of basic trust versus mistrust and that successful resolution of this conflict results in the development of *hope* as a psychosocial strength (Erikson & Erikson, 1998). Hence, Erikson's theory is particularly relevant in the context of this study as his model explains that hope necessitates human development from childhood into adulthood.

Erikson (1968) classified adult development into three developmental phases: early adulthood, middle adulthood and late adulthood. However, considering the revolutionary changes in social norms during the last 50 years, which have altered *traditional* life trajectories, contemporary developmental literature has advocated for an updated version of Erikson's model (Arnett, 2000; Butkovic et al., 2020; Robinson, 2015). Arnett (2000) recommended that the period previously known as young adulthood should be separated into two distinctive developmental periods, namely, emerging adulthood and early adulthood. Accordingly, this contemporary approach was adopted in the present study, classifying adulthood in the following four stages: emerging adulthood (18-27 years), early adulthood (28-39 years), middle adulthood (40-59 years) and older adulthood (60+ years). These stages are socially constructed, which implies that the exact age boundaries are open to interpretation and may be influenced by cultural and/or historical contexts as well as subjective factors such as one's own age (Arnett, 2000; Chopik et al., 2018; Lachman, 2002). For ease of comparison, the different developmental groups were classified in accordance with the age boundaries used by similar studies from the International Hope Barometer Project (e.g., Margelisch, 2018; Perrig-Chiello et al., 2018)

2.5.1.1 Emerging Adulthood. The first stage of adulthood, which is known as emerging adulthood, may be considered to be a liminal phase between adolescence and adulthood, defined by some features of adolescence and some of early adulthood (Butkovic et al., 2020). It is a period characterised by searching for a place and purpose in the world and a sense of independence from caregivers (Bronk et al., 2009; Butkovic et al., 2020; Havighurst, 1972; Robinson, 2020). During this time, many emerging adults move away from their family homes to complete their education and enter the world of employment, marking the beginning of their lives as financially independent adults (Booker et al., 2021). Arnett (2000, 2014) described it as a time of great change and possibility. Furthermore, it is frequently considered a period of exploration in relation to love, work and worldviews. Towards the end of the emerging adulthood stage, many individuals will have made decisions related to the future directions for their lives (Arnett, 2000; Booker et al., 2021).

2.5.1.2 Early Adulthood. Erikson (1968) theorised that during early adulthood an individual must negotiate the task of intimacy versus isolation, which typically involves searching for companionship and love with family, friends and partners. He explained that individuals in this phase are often transitioning into many adult roles such as marriage, parenthood and higher work positions (Eriksson et al., 2020). Developmental theorists have asserted that most of the challenges faced during this time are related to issues of commitment during which individuals often balance multiple new responsibilities (Ivtzan et al., 2015). It may be a time when individuals re-evaluate and consolidate major life choices, which may lead to identity conflicts (Eriksson et al., 2020; Ivtzan et al., 2015; Robinson, 2015). Robinson (2015) referred to this period as the quarter-life crisis triggered by confusion about roles and commitments as well as the fear of a lost individual identity.

Despite the acknowledgement in developmental psychology that young adulthood is defined by two distinctive stages, researchers still frequently group emerging and early

adulthood into the same age cohort (Robinson, 2015). A large proportion of the literature reviewed in this paper does not distinguish between the two. Additionally, amongst the studies that have recognised the distinction, the majority have focused on emerging adulthood. Hence, very little is known specifically about the correlates of hope and well-being amongst the early adult group.

2.5.1.3 Middle Adulthood. Developmental psychologists typically classify middle adulthood as a relatively long developmental period between the ages of 40 and 60 years (Lachman, 2002). Erikson (1968) defined the task of middle adulthood as generativity versus stagnation, which is characterised by managing demands from family and professional life. Tasks typically require individuals to give of themselves to others through efforts such as child rearing, caring for aging parents and devoting time to one's work (Lachman, 2002). It may also be a time of reappraising perspectives and adjusting priorities (Ivtzan et al., 2015). Theorists have highlighted that during this stage there is an increased awareness of the aging process and realisation of human mortality. This is often reflected in an individual's desire to nurture future generations and make meaningful contributions to society (Butkovic et al., 2020). This may also be expressed through investment in one's family or becoming more involved in positions of leadership and/or education (Mitchell et al., 2021).

2.5.1.4 Older Adulthood. Researchers and South African government legislature classify older adulthood as the population group above the age of 60 years (Daviaud et al., 2019; Geffen et al., 2019; Kopylova et al., 2022). This age group corresponds to Erikson's (1968) final developmental stage, integrity versus despair, which is typically viewed as a time for reflecting and coming to terms with death (Bronk et al., 2009; Butkovic et al., 2020). It is associated with multiple role adjustments, which involve processing the endings of significant life stages such as the loss of family structure and parental duties as children move away (Ivtzan et al., 2015). Traditionally, this stage also involves a transition towards retirement, which often

leaves individuals with the task of redefining their sense of purpose and meaning in life (Mitchell et al., 2021). In addition, this period is accompanied by a decline in health, which is associated with numerous challenges, including the loss of control (Bronk et al., 2009; Butkovic et al., 2020).

In sum, informed by Erikson's (1968) model, contemporary developmental theorists define adulthood into four distinct phases, each of which is characterised by developmentally informed tasks and challenges. As we move through these stages, our motivations and hopes are likely to evolve as the future takes on different meanings. Research into hope across the adult lifespan is detailed below.

2.5.2 Hope Across the Lifespan

The stability of hope as a personality trait has long been debated in psychology (Marques & Gallagher, 2017). While proponents of Snyder's theory have asserted that hope is primarily developed through early life experiences and remains relatively stable across one's lifespan (Cheavens & Gum, 2000; Snyder, 2000a), others have argued that it is a highly variable construct, which is influenced by situational factors (Bronk et al., 2009; Marques & Gallagher, 2017; Slezáčková, 2017). Despite this debate, while studies that have examined age differences in hope have focused primarily on the earlier developmental stages, very few have compared hope amongst different adulthood stages (Marques & Gallagher, 2017). Bronk et al. (2009) who explored dispositional hope from adolescence to adulthood revealed that hope levels were relatively similar across the developmental phases. Similarly, Boyce and Harris (2013) concluded that levels of dispositional hope were not significantly different between different age cohorts amongst South Africans. This concurs broadly with the notion that hope is a trait that is relatively stable in nature (Gallagher et al., 2017; Snyder, 2002; Valle et al., 2006).

However, other studies have found that in comparison to the other age groups, middle adulthood groups had the highest levels of dispositional hope (Bailey & Snyder, 2007; Marques

& Gallagher, 2017). Developmental theorists have highlighted that middle adulthood is generally expected to be a fairly stable phase of life in which many of the tasks of adulthood have typically been realised such as finding a life partner and establishing a career path (Erikson, 1968; Havighurst, 1972; Marques & Gallagher, 2017). Marques and Gallagher (2017) suggested that the relative stability and clear delineation of roles during middle adulthood may provide some explanation for the comparably higher levels of hope reported during this stage.

On the contrary, Bailey and Snyder (2007) found that older adults' dispositional hope levels were significantly lower than other age groups. In accordance with Snyder's (2000b) conceptualisation of hope, Bailey and Snyder (2007) also revealed that older adults were less capable of determining pathways to achieve their goals. Marques and Gallagher's (2017) findings in a sample of Portuguese individuals between the ages of 15 and 80 years were comparable in that older adults had the lowest hope scores. Marques and Gallagher (2017) further revealed that hope levels gradually increased from adolescence to early adulthood and reached its highest levels during middle adulthood, before declining sharply after the age of 65 years. They posited that the sudden physical, familial and occupational changes faced during older adulthood are likely to instil anxiety, which could have a negative effect on levels of hope during these periods (Marques & Gallagher, 2017). Additional challenges such as fewer social connections and financial concerns may also explain why older adults may suddenly find it more difficult to think positively about the future (Bailey & Snyder, 2007; Marques & Gallagher, 2017).

Research on developmental changes in perceived hope has received considerably less attention. Krafft and Walker (2018a) found that levels of perceived hope among German and Swiss participants increased continuously throughout their lifespan, with no decline during older adulthood. Similar findings were noted by Slezáčková et al. (2018), specifically that their

sample of older adults scored significantly higher on perceived hope in comparison to their younger counterparts. They explained that the age-related differences in levels of perceived hope may be linked to degrees of meaningfulness. They further proposed that young adults are preoccupied with issues related to identity and the search for meaning in their lives. However, it has been suggested that older adults may have typically resolved those conflicts and have time to reflect on their life achievements, which may affirm that their lives have been meaningful (Slezáčková, 2017; Slezáčková et al., 2018; Slezáčková & Krafft, 2016). However, given the lack of research in this area, these findings should be interpreted tentatively.

Thus, studies that have investigated hope from a developmental perspective have reported inconsistent findings. While some studies have demonstrated that dispositional hope is relatively stable throughout development (Boyce & Harris, 2013; Bronk et al., 2009), other studies have found significant differences in levels of hope among different age groups (Bailey & Snyder, 2007; Marques & Gallagher, 2017). Although there is a paucity of research on perceived hope across individuals' lifespan, it appears from the limited body of research that the age-related trend in levels of perceived hope differs considerably from that of dispositional hope (Krafft & Walker, 2018a). It is imperative that more research is conducted to acquire an enhanced understanding of these developmentally informed differences between perceived hope and dispositional hope.

2.5.3 Well-being in the context of Adult Developmental Stages

Researchers in positive psychology have become increasingly interested in comparing levels of well-being across different life stages. Numerous studies from Western countries have found a positive correlation between age and well-being, revealing that older adults report higher levels of well-being than younger populations (Hitchcott et al., 2020; Mahlo & Windsor, 2020; Perrig-Chiello et al., 2018; Stone et al., 2010). Research that has compared specific developmental stages of adulthood has also found a gradual decline in well-being during

emerging adulthood and early adulthood, before a steady increase from middle adulthood into older adulthood (Bauer et al., 2017; Blanchflower & Oswald, 2008; Perrig-Chiello et al., 2018; Stone et al., 2010). Within the context of these studies, this trend appears to be consistent when controlling for variables such as gender, nationality and socio-economic status (Perrig-Chiello et al., 2018; Stone et al., 2010).

While some authors have speculated that the reason for higher levels of well-being in late adulthood is because older adults are less demanding and more adaptive than younger adults, others have noted that older adults have more experience in facing life challenges and are therefore better able to handle age-specific challenges due to improved self-regulation and emotion management (Mahlo & Windsor, 2020; Perrig-Chiello et al., 2018). However, the decline in well-being in early adulthood is not explained adequately in the literature. Some researchers have hypothesised that it may be reflective of increasing responsibilities, which are likely to be stressful experiences, such as caring for children, greater financial burdens and supporting aging parents (Booker et al., 2021; Hudson et al., 2019). With increasing responsibilities and stressors during this period, there is also likely to be less time available for hedonistic needs, which may account in part for the decline in well-being.

A limited body of research in non-Western contexts has arrived at less conclusive findings. Khumalo et al. (2012), who examined the psychological well-being in a sample of Setswana-speaking adults in South Africa, revealed no associations between age and well-being. However, Xavier Gómez-Olivé et al. (2010) reported that, although quality of life increased during middle adulthood in a sample of participants from different regions and cultural groups, it decreased after the age of 70 when their general health and functioning deteriorated. Unlike the results from Western research, both South African studies reported that socio-demographic factors such as living conditions and employment status contributed significantly to the variance in well-being scores (Khumalo et al., 2012; Xavier Gómez-Olivé

et al., 2010). Considering these differences in the findings related to well-being across the life span, one may deduce that more research is essential to shed light on the association between age and well-being in the South African context.

2.5.4 Sources of Hope across the Lifespan

As individuals transition into different developmental phases with unique challenges and goals, they may find hope from different sources (Butkovic et al., 2020). However, as highlighted previously in this review, only a scarcity of literature has revealed specific sources of hope and their connections to levels of hope and well-being(Garcia & Sison, 2013; Krafft & Walker, 2018a; Slezáčková et al., 2018). Even fewer studies have investigated sources of hope from a developmental perspective. A small body of research has examined various psychological correlates of hope at different stages of adult development. While the latter may not have considered how individuals define their own sources of hope, it offers some insight into the factors associated with higher levels of hope amongst different age cohorts.

Dwivedi and Rastogi (2016) found that job insecurity was a major stressor for Indian university students who were emerging adults. The university at which the study was conducted, had a reputation for producing highly sought-after graduates. Acceptance into the university was therefore found to be an important predictor of dispositional hope for this age group (Dwivedi & Rastogi, 2016). This concurs with Butkovic et al. (2020) who revealed that the need for competence was the strongest predictor of life satisfaction in emerging adulthood. Acceptance into university may be viewed as an indicator of competency, increasing levels of hope and thereby, improving well-being. In addition, Karayigit and Wood (2021) highlighted the importance of social connections as a vital source of meaning for emerging adults in their exploration of how emerging adults from American universities found meaning in their lives.

Butkovic et al. (2020) revealed that the need for relatedness was the most significant predictor of life satisfaction among early to middle-aged adults between the ages of 30 and 49.

Furthermore, hope research has found that being in an enduring relationship with a significant other is likely to enhance hopeful thinking (Bailey & Snyder, 2007; Marques & Gallagher, 2017). Considering that relationships with partners, family members and work colleagues are a primary concern for this age group, this finding is not surprising (Butkovic et al., 2020). Margelisch (2018) investigated the importance of spirituality across different age groups in Switzerland. Interestingly, the results highlighted that middle-aged adults scored significantly higher on measurers of spirituality in comparison to those in early adulthood possibly because younger adults tend to rely on their careers, physical health and new spousal or parental roles as primary identifications and a source of control. Margelisch (2018) further explained that spirituality can provide a sense of security and potentially a source of hope when middle-aged adults encounter new challenges related to failing health and changes in identity roles.

Margelisch (2018) also found that spirituality was a significant predictor of well-being for older adults. With the inevitable loss of significant others, the social component of religious and spiritual activities may become more important for older people (Margelisch, 2018). Similarly, research has shown that religion is an important mitigating factor against loneliness during this period (Durmuş & Öztürk, 2022; Koenig, 2020). Margelisch (2018) proposed that spirituality may provide older adults with a sense of meaning in life. Lin et al. (2022) explored the correlates of dispositional hope in older adults and found that having a sense of meaning and purpose were important factors in promoting the sustenance of hope. They further reported that older adults were more hopeful when they felt more informed and in control of the aging process (Lin et al., 2022). Comparably, Long et al. (2020), in a longitudinal study examining hope and well-being in older adults, found that experiences of mastery were strongly correlated with levels of hope, suggesting that maintaining a sense of control and independence is important for this age group. These findings have been replicated in other studies, indicating

that maintaining a sense of competency is important during older adulthood (Lin et al., 2022; Neubauer et al., 2015; Perrig-Chiello et al., 2018).

Hence, research has revealed that across the life course, different experiences and relationships take on new meanings and different levels of significance, which are likely to influence how hope is sourced. These studies have suggested that emerging adults find hope in interpersonal interactions as well as through activities that reinforce their capabilities positively. During early adulthood, individuals appear to source hope primarily through their identities in relationships and professional roles. However, individuals in middle adulthood tend to experience spirituality as increasingly important. Similarly, research has shown that in addition to experiences that reinforce older adults' sense of autonomy, they source their hope through spiritual connections.

2.5.5 Conclusion

In summary, adulthood may be conceptualised as comprising four developmental stages, which are determined by normative tasks and challenges that are typically experienced at specific moments in the life course. As personal desires and priorities change with age, hope and well-being are likely to manifest differently. The findings of studies that have explored levels of hope and well-being at different developmental stages have been inconsistent. There is also a lack of knowledge about levels and predictors of perceived hope from a developmental perspective, highlighting the need for further research. Research on the predictors of dispositional hope and other constructs in positive psychology have revealed age-related factors may play a role in how individuals source and maintain hope during different developmental stages. In addition, the majority of the studies have originated from the Global North and limited knowledge is available from developing counties in the Global South, such as South Africa. In the following section, the relevance of this research in the South African context is discussed.

2.6 Hope in the South African Context

Against the backdrop of the new South African democracy and discourses around establishing a *rainbow nation*, the concept of hope has gained traction in political and academic settings in recent years (Boyce & Harris, 2013). Despite this interest, until recently, only a scarcity of research has examined the levels and dynamics of hope within the South African context (Boyce & Harris, 2013; Slezáčková et al., 2021; Wilson et al., 2021). South Africa's fraught history of racial segregation has led to one of the most unequal populations in the world as well as numerous challenges in the political, social and economic domains (Boyce & Harris, 2013). Some of the most salient hardships include the high rates of unemployment, levels of corruption, gender based violence, lack of service delivery, poor quality of education and social and racial tensions in society (Kagee, 2014; Wilson et al., 2021). When considering these challenges, it is possible to imagine that hopefulness may be limited (Boyce & Harris, 2013).

However, in a study that compared hope and harmony in life in different contexts, Slezáčková et al. (2021) reported that South African participants were significantly more hopeful than those from other nations such as the Czech Republic, Germany and India. Similarly, the Global Optimism Outlook Survey commissioned by the World Expo 2020, involving 20 000 participants across 23 countries, reported that the South African cohort scored 8% higher than the global average on measures of optimism (Brophy, 2019). However, as this survey was not peer reviewed, the results should be interpreted tentatively. Bearing in mind these limitations, both studies imply that despite inherent adversities, positivity and hopefulness may be noteworthy characteristics amongst the South African adult population. Thus, one may question the roots of hopeful thinking and main sources that are related to positive outcomes of hope amongst this group.

Identifying the need to acquire an enhanced understanding of positive psychology from an Afrocentric perspective, Wilson et al. (2021) examined the relationships between hope, goals and meaning making among participants from Ghana and South Africa. The findings highlighted the strong sense of a collectivist identity and how conceptual understandings of hope and well-being were intrinsically linked to relational experiences (Wilson et al., 2021). The South African participants noted that hope was found in the context of emotionally supportive relationships with significant others and in experiences of connection with the spiritual world, including ancestors and deities (Wilson et al., 2021). These findings support Cherrington (2018) who explored children's conceptualisations of hope in a South African rural community. The children in the study explained that hope exists within interpersonal interactions and added that "hopeful people within the community are able to help others in need by holding their hope for them until they are able to be hopeful themselves" (Cherrington, 2018, p. 7). This is related broadly to Weingarten's (2010) construction of hope as a shared project and the idea that the act of hope can be lent to others (Kotzé et al., 2013).

Both Cherrington (2018) and Wilson et al. (2021) emphasised that the focus of collectivism in the Afrocentric worldview does not downplay the value of individual agency and intrapersonal processes associated with the pursuit for hope and well-being. Rather, considering the idea that personhood is so closely entwined with a sense of community, Wilson et al. (2021, p. 509) stated that "individuals make meaning and develop positive futures in relation to others." Hence, from an Afrocentric perspective, hope appears to be constructed as an ideal that is sourced collectively and shared amongst others. The results from these two studies draw attention to the influence of cultural context in relation to where and how individuals source hope in their daily lives. It also raises questions about the dynamics and mechanisms of hope in a society like South Africa that is inherently multi-cultural. In order to

gain an improved understanding of how these factors interact, more research is needed in this area.

2.7 Chapter Summary

Hope is one of the most widely researched topics in the field of positive psychology and is defined by multiple different elements, including a cognitive resource, positive emotional experience, a character strength and transcendental phenomenon (Slezáčková, 2017; Slezáčková & Krafft, 2016). Different theoretical models measure and operationalise different aspects of this multidimensional construct. While dispositional hope (Snyder, 2002) is related to the individualistic, cognitive perspective of hope, perceived hope (Krafft et al., 2019) highlights the transcendental, spiritual and relational components (Slezáčková & Krafft, 2016). Irrespective of the theoretical orientation adopted, research has consistently shown that hope is a strong predictor of well-being (Slezáčková et al., 2018; Slezáčková & Krafft, 2016).

Well-being is another important multidimensional construct in positive psychology and comprises both hedonic and eudaimonic elements. While the hedonic perspective is related to positive affective experiences and life satisfaction, the eudaimonic perspective considers well-being in terms of functioning well and realising one's full potential. Both perspectives converge into Keyes' (2002, 2005, 2009) model of complete mental health, which encompasses aspects of emotional, psychological and social well-being. While correlations between hope and well-being have been well documented, there are certain gaps in the literature. Although most studies that have examined hope and well-being have conceptualised hope in terms of Snyder's (2000b) cognitive model, very few studies have explored elements of perceived hope. In addition, quantitative research studies have typically employed one scale to measure well-being, thus limiting their findings to either the hedonic or eudaimonic perspective and very few have explored well-being holistically (Pleeging et al., 2021). Understanding the interactions

between these different dimensions of hope and well-being is particularly important in therapeutic interventions designed to optimise psychological functioning.

Sources of hope are another area of literature that has been largely neglected by researchers. While Snyder's (2000b) cognitive model relies on the assumption that hope is sourced internally, there is a growing body of research that has indicated that hope may also be derived from external providers such as social relationships, spiritual connections and experiences of mastery (Bernardo & Nalipay, 2016; Krafft & Walker, 2018a; Scioli et al., 2016). However, not much is known about the extent to which these hope providers contribute to positive changes in psychological outcomes. In order to determine which sources of hope are associated with the highest levels of hope and well-being, it is essential to consider various developmental and contextual factors.

The findings from studies that have examined the stability of hope and well-being across the adult lifespan have been inconclusive. However, a very limited body of research has revealed that differences may exist between the types of experiences that foster hope across the developmental stages of adulthood, namely, emerging adulthood, early adulthood, middle adulthood and older adulthood (Butkovic et al., 2020; Margelisch, 2018). In addition, research has indicated that cultural factors may play a role in where hope is sourced and the resultant influence it has on levels of hope and well-being. Cross-cultural studies have revealed that South African adults are generally more hopeful than other populations (Slezáčková et al., 2021). In order to explore the potential reasons for and validity behind these claims, more research is needed.

The aim of the present study was to address these gaps in the literature by exploring the relationships between different sources of hope and levels of dispositional hope, perceived hope and well-being across four adult age groups in South Africa. In the following chapter, the methodology employed in this study is discussed.

Chapter 3: Methodology

3.1 Chapter Overview

In this chapter, the research methods that were employed in this study are outlined. First, the research question and aims noted in Chapter 1 are reviewed. Subsequently, the research design, participants and sampling procedure are described. Thereafter, measuring instruments are discussed, steps of the statistical analyses outlined and ethical considerations that were employed throughout the study considered.

3.2 Research Aim and Objectives

The purpose of the study was to investigate the relationships between specific sources of hope and levels of dispositional hope, perceived hope and well-being across four age groups in South Africa. The three objectives of the study were:

1. To determine and compare the levels of dispositional hope, perceived hope and well-being amongst four age groups in South Africa;
2. To identify and compare the most important sources of hope for South African adults across four age groups; and
3. To explore the relationships between specific sources of hope and the levels of dispositional hope, perceived hope and well-being across four age groups in South Africa.

3.3 Research Context and Design

This study was positioned within the Hope Barometer International Research Programme, which explored hope and associated constructs in 16 culturally diverse countries (Krafft & Walker, 2018b). A cross-sectional survey design was used to collect the data, using an anonymous online survey comprising 156 individual items. The survey consisted of demographic items as well as scales that measured variables such as life satisfaction, quality

of life, future expectations, personal wishes, support networks, physical and psychological health, well-being and hope. Survey research was deemed to be advantageous for this project as it allowed the study to be replicated easily, allowing population groups to be compared (Cozby & Bates, 2018).

The data analysed in this study were from an existing data set of a South African sample that was collected from the Hope Barometer Survey in 2019. This study was a secondary analysis of the original data and employed a quantitative research design. The associations between sources of hope (independent variables) and levels of dispositional hope, perceived hope and well-being (dependent variables) across four age groups were examined.

3.4 Participants and Sampling Procedure

3.4.1 Sample Characteristics

The sample collected in the 2019 Hope Barometer Survey included 472 South African adults (48.9% male, 51.1% female), aged 18-88 (M = 38.70, SD = 14.81). The sample comprised 283 white participants (60.1%), 135 black African participants (28.6%), 26 coloured participants (5.5%), 23 Indian participants (4.9%) and 5 participants who identified as *other* (1.1%). For the purposes of the statistical analyses, the participants were divided into four groups in accordance with their developmental stages. After the removal of seven outlier cases, the final sample (N = 465) included 132 participants in the emerging adulthood group (18-27 years), 137 in the early adulthood group (28-39 years), 141 in the middle adulthood group (40-59 years) and 55 in the older adulthood group (60+ years).

3.4.2 Sampling Procedure

Convenience sampling was employed to recruit participants in November 2019. South Africans over the age of 18 were invited to participate in the study through a variety of media platforms such as online newspapers, social media and email. Additional participants were

obtained through a Qualtrics survey panel. This sampling method was used as it allowed for the recruitment of a large, diverse sample of participants across a large demographic area (Cozby & Bates, 2018). Inclusion in the study was restricted to South African individuals who were over the age of 18 years and who had provided consent to participate in the study. Only the data from the participants who completed the full survey were included.

3.5 Measures

3.5.1 Demographic Information

Information collected from participants included their age, race, family status, education level and health status.

3.5.2 Sources of Hope

The participants were asked the question *Which experiences strengthen your hope*? and had to respond to 18 possible sources of hope. Examples of these sources include *memories of a happy childhood*, *successful political involvement*, *I have experienced God*, and *my professional successes and achievements*. The participants were required to assess each of the sources on a 4-point scale, from 1 to 4, ranging from *not at all* to *very much*. These items were selected and adapted from the *Experiences that Promote Hope* scale in the 2011 version of the Hope Barometer, which was administered to a German-speaking sample (Krafft & Walker, 2018a).

3.5.3 The Dispositional Hope Scale (DHS)

The DHS (Snyder et al., 1991) measures hope as a cognitive-motivational construct. The original measure consists of 12 items. Of these, four are related to the agency dimension of hope (e.g., *I energetically pursue my goals*), four to the pathways of hope (e.g., *I can think of many ways to get the things in life that are important to me*) and four that serve as distractors and which are not scored (Snyder, 2000b). To minimise the time taken to complete the survey,

the four distractor items were removed for the Hope Barometer Survey in 2019. The remaining eight items were assessed on a six-point Likert scale, ranging from *strongly disagree* to *strongly agree*, with higher scores denoting higher levels of dispositional hope. For the purposes of this study, individual responses from the eight items were summed to create a total DHS score, which ranged from 8 to 48.

The DHS has been widely used with a variety of diverse samples and administered in a number of South African studies (Boyce & Harris, 2013; Guse & Shaw, 2018; Khumalo & Guse, 2022). Validity and reliability scores of the DHS are consistently high (Guse & Shaw, 2018). Significant correlations have been found with associated constructs such as optimism and self-esteem. In addition, scores have correlated inversely with those on Beck's Hopelessness Scale (BHS) (Beck & Steer, 1988; Snyder, 2000b). The DHS has demonstrated adequate internal consistency, with Snyder (2000b) reporting Cronbach's alpha values ranging from .74 to .84. Guse and Shaw (2018) found a high score of internal consistency in a South African study (α=.89). Cronbach's alpha was .90 for this study.

3.5.4 The Perceived Hope Scale (PHS)

The PHS (Krafft et al., 2019) is a measurement of individuals' perceptions of the role that hope plays in their lives. The scale comprises seven items (e.g., *Hope improves the quality of my life*). Individual items are related to aspects such as the value of hope, levels of hope, fulfilment of hope and hope in response to anxiety (Slezáčková et al., 2021). The PHS is evaluated on a six-point Likert scale, ranging from *strongly disagree* to *strongly agree*. Item responses were summed to create a total PHS score, ranging from 7 to 42. Higher scores indicate higher levels of perceived hope.

In relation to convergent validity, significant positive relationships have been reported with constructs such as resilience, self-efficacy and spiritual and religious beliefs (Krafft et al., 2019). When compared to the DHS, the PHS has shown evidence of divergent validity (Krafft

et al., 2019). In the limited number of studies in which it has been used, the PHS has shown good reliability (Guse & Shaw, 2018; Krafft et al., 2019, 2021; Slezáčková et al., 2018). In a South African study, Guse and Shaw's (2018) results reported a Cronbach's alpha of .92. Cronbach's alpha for this study was .90.

3.5.5 The Mental Health Continuum Short Form (MHC-SF)

The MHC-SF (Keyes, 2009) is a 14-item measure of emotional, psychological and social aspects of well-being and is derived from the original 40-item long form (MHC-LF). The short form consists of three items related to emotional well-being (e.g., *In the past month, how often did you feel happy?*), five items that reflect psychological well-being (e.g., *In the past month, how often did you feel that your life had a sense of direction or meaning in it?*) and six items that represent social well-being (e.g., *In the past month, how often did you feel that you had something important to contribute to society?*). Respondents are required to indicate the frequency of their positive mental health experiences in the previous month. The items are assessed on a six-point Likert scale, ranging from *never* to *every day* (de Bruin & du Plessis, 2015; Keyes, 2009). Individual item scores are summed, yielding a total MHC-SF score ranging from 0 to 70.

The scale has been used in a range of cultural contexts, including South Africa, and has been shown to have good psychometric properties, with Cronbach's alpha values ranging from .74 to .87 (de Bruin & du Plessis, 2015; Guse & Shaw, 2018; Keyes et al., 2008). Keyes et al. (2008) reported good convergent validity with constructs such as positive affect and satisfaction with life in a sample of Setswana-speaking South Africans. The MHC-SF has also demonstrated good discriminant, criterion and construct validity (de Bruin & du Plessis, 2015; Keyes et al., 2008). Cronbach's alpha value for this study was .94.

3.6 Data Analyses

Statistical analyses were performed by using IBM SPSS (version 28.0.1). Prior to the main statistical analyses, it is important to assess the accuracy of the data file and examine factors that could produce distorted results (Tabachnick & Fidell, 2014). Hence, the raw data were screened for poor and/or incomplete responses by examining univariate descriptive statistics and graphic representations of item responses for each variable to ensure that there were no missing data or out of range values. The Z-scores for each of the dependent variables in the four age groups were examined to screen for significant outliers. Significant outliers ($p < .001$), which were identified as having a Z-score with an absolute value of above 3.29, were subsequently removed from the data set (Field, 2017; Hair et al., 2009).

A series of statistical analyses were performed to address the research aims and objectives of the study. Before conducting each of the tests, the relevant test assumptions were assessed and adjustments applied accordingly. The descriptive statistics of all the study variables were also examined and compared among the four age groups. The levels of dispositional hope, perceived hope and well-being were subsequently compared across the four age groups by employing a one-way multivariate analysis of variance (MANOVA). This was followed by post-hoc tests with Games-Howell correction because of the unequal group sizes (Field, 2009; Tabachnick & Fidell, 2014).

In order to examine the commonalities and differences in hope sources across the four age groups, separate one-way analyses of variance (ANOVAs) were conducted to compare differences in item scores on the Sources of Hope Questionnaire. Accounting for unequal group sizes, the Games-Howell post-hoc test was employed to compare all possible combinations of group differences (Field, 2017). Principal factor analysis (PFA) was subsequently conducted using a Varimax orthogonal rotation to summarise the 18 sources of hope into a smaller set of factors that represent meaningful underlying constructs. PFA was chosen instead of a principal

component analysis (PCA) because the intention was to reduce the complexity of the data and identify latent factors that are characteristic of the 18 individual sources of hope (Field, 2017; Tredoux & Durrheim, 2019). When deciding on the number of factors to retain, there is considerable discrepancy based on different theoretical criteria (Field, 2017). Hence, a combination of methods was consulted to assist with this decision, namely, Kaiser's rule of extracting factors with eigenvalues greater than 1.00, Cattell's Scree Plot and Horn's parallel analysis. The latter method proposes retaining factors with eigenvalues that are larger than the average eigenvalue from a randomly generated data set of the same sample size (Pituch & Stevens, 2015; Tabachnick & Fidell, 2014). Composite factor scores were then created for each extracted factor by employing the Anderson-Rubin adjustment to avoid the risk of multicollinearity between the factor scores in the subsequent regression analyses and improve the interpretability of the results (Field, 2017).

Pearson correlation coefficients were calculated to examine the associations between the identified sources of hope (factors) and the levels of dispositional hope, perceived hope and well-being across the four age groups. A series of hierarchical multiple regression models were conducted to investigate these associations, while controlling for demographic variables, including health status, education level, family status and population group because research has shown that these variables may be related to hope and well-being (Guse & Vermaak, 2011; Long et al., 2020; Slezáčková et al., 2018). All control variables were entered as a block in the first step and the sources of hope (factors) were incrementally entered into the model, one at a time, retaining the factors with a significant change in R^2 in the subsequent steps. Only the significant factors were retained and entered simultaneously in the final models. When conducting numerous regression analyses, there is an increased risk of making a family-wise error. To minimise this risk, a more conservative probability value of 0.01 was used as the criteria for statistical significance (Field, 2009). According to the guidelines provided by Field

(2009, 2017) and Green (1991) the sample size of the older adulthood group (n = 55) is insufficient for the detection of a small to medium effect size in a regression model. Hence, no multiple regression models were conducted for the older adulthood group.

To evaluate the fit of each regression model, the data were examined for influential cases by reviewing statistics such as leverage values, Mahalanobis distances, Cook's distances, standardised DFBeta and standardised DFFit values (Field, 2009; Tabachnick & Fidell, 2014). The assumptions of linearity and heteroscedasticity were also examined. To check for multicollinearity, the correlation matrix was reviewed for highly correlated variables (correlation coefficients above 0.8), the variance inflation factor (VIF) values were scanned for high values (above 10) and the tolerance scores were reviewed for values below 0.1 (Field, 2009; Tabachnick & Fidell, 2014).

3.7 Ethical Considerations

This study used the data gathered by the South African Hope Barometer Survey in 2019. Ethical approval for the survey was obtained from the University of Pretoria Ethics Committee prior to commencing the research project (HUM006/0819)) (Appendix A). In keeping with the principles outlined by the Health Profession's Act No 56 of 1974, ethically sound principles were followed. Participation in the study was voluntary and the participants were informed that they could withdraw at any time, without any negative consequences. Informed consent was obtained from all the participants before commencing the survey. Participant confidentiality was maintained by removing all identifying information from the data, which were securely stored on a password-protected online platform, accessible only to the researchers involved in the Hope Barometer Project. Before embarking on the data analysis for this study, further ethical clearance was obtained from the Humanities Faculty Ethics Committee at the University of Pretoria (Appendix B).

3.8 Chapter Summary

The methodology employed in this study was detailed in this chapter. The research question and study aims were provided again, the choice of research design, participants, measuring instruments and statistical analyses discussed and the ethical considerations outlined. In the following chapter, the results of the data analyses are presented.

Chapter 4: Results

4.1 Chapter Overview

In this chapter, the results from the data analyses are presented. However, there is first a brief commentary about the findings from the preliminary screening process. This is followed by a review of the results from a series of statistical analyses. The results relate specifically to the three research objectives, namely, (1) to compare the levels of dispositional hope, perceived hope and well-being amongst different age groups in South Africa, (2) to identify and compare the most important sources of hope for South African adults across four age groups and (3) to explore the relationships between specific sources of hope and the levels of dispositional hope, perceived hope and well-being across four age groups in South Africa.

4.2 Data Screening

No problematic and missing values were found after the initial screening of the raw data. However, seven cases across the four groups had absolute Z-scores greater than 3.29 and were therefore classified as significant outliers ($p < .001$). Hence, three cases from the emerging adulthood group, two from the early adulthood group and two from the middle adulthood group were removed.

4.3 Levels of Dispositional Hope, Perceived Hope and Well-Being

4.3.1 Descriptive Statistics

The descriptive statistics for scores on the dispositional hope, perceived hope and well-being scales are presented in Table 1. An examination of the table reveals that the standard deviations of the dependent variables were all smaller than their respective means, which suggests that there is no cause for concern. In addition, the skewness and kurtosis values were

all smaller than the absolute value of 1, suggesting no problems with the distribution of data scores.

Table 1

Descriptive Statistics of Dispositional Hope, Perceived Hope and Well-Being

	Emerging Adulthood (18-27 years)		Early Adulthood (28-39 years)		Middle Adulthood (40-49 years)		Older Adulthood (60+ years)	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Perceived Hope	33.02	5.59	33.61	6.95	33.78	5.32	33.67	5.83
Dispositional Hope	37.85	5.26	37.41	6.61	36.96	5.77	36.56	6.29
Well-Being	58.45	14.73	58.94	17.01	57.66	15.04	62.09	12.82
n	132		137		141		55	

4.3.2 One-way Multivariate Analysis of Variance (MANOVA)

A one-way MANOVA was conducted to examine the differences in levels of dispositional hope, perceived hope and well-being across the four age groups. Preliminary checks were performed to assess for assumptions of linearity, multicollinearity, multivariate normality and homogeneity of variance-covariance matrices.

Scatterplots indicated that there were linear relationships among all pairs of dependent variables across the four age groups, supporting the assumption of linearity. The Pearson correlation values between the dependent variables were all below 0.8 ($p < .001$), suggesting that there were no problems with multicollinearity (Field, 2017). Univariate normality tests for each dependent variable were used as an approximation of multivariate normality (Field, 2017; Hair et al., 2009; Pituch & Stevens, 2015; Tabachnick & Fidell, 2014). Accordingly, Shapiro-Wilk tests statistics (Table C1 in Appendix C) revealed that only the well-being distribution in the older adulthood group met the criteria for univariate normality, $W(55) = .97$, $p = .266$, while

the other dependent variables violated the assumption (all *ps* < .05). However, upon inspection of the boxplots and Q-Q plots, despite a mild degree of skewness in the data, it appears that the distributions were reasonably consistent with the normal distribution. The boxplots also demonstrated relatively few univariate outliers across the groups, none of which were identified as extreme outliers (Field, 2017). In addition, the skewness and kurtosis values were below the absolute value of 2, suggesting that across the four age groups, the dependent variables did not depart considerably from the normal distribution (Pituch & Stevens, 2015). Furthermore, the literature has explained that the MANOVA is fairly robust to modest violations of normality (Hair et al., 2009; Pituch & Stevens, 2015; Tabachnick & Fidell, 2014). Hence, it was concluded that the assumption of multivariate normality was approximately upheld, allowing the analysis to continue with caution. Finally, Box's M test indicated that the assumption of homogeneity of variance-covariance matrices was met, $F = 1.63$, $p = .044$, using an alpha value of 0.01.

With the use of Pillai's criterion, the combined dependent variables were significantly different across the various age groups (Pillai's $\Lambda = .96$, $F(9, 1383) = 1.89$, $p = .049$, partial $\eta^2 = .012$). However, based on the univariate tests, perceived hope ($p = .74$), dispositional hope ($p = .49$) and well-being ($p = .34$) were not statistically significant between the age groups. Post-hoc tests with Games-Howell correction also found no significant differences across each age group with regards to all three dependent variables. Hence, the univariate analyses indicated that individually there were no significant differences between the levels of dispositional hope, perceived hope and well-being across the four age groups. However, collectively, the overall interaction of the three dependent variables accounted for the significant differences across the age groups (Field, 2017).

4.4 Sources of Hope

4.4.1 Descriptive Statistics

Table 2

Mean and Standard Deviations of 18 Sources of Hope

Item	Emerging Adulthood (18-27 years)	Early Adulthood (28-39 years)	Middle Adulthood (40-49 years)	Older Adulthood (60+ years)
1. Participation at political events	1.73 (0.85)	1.58 (0.98)	1.41 (0.76)	1.42 (0.71)
2. Memories of a happy childhood	3.00 (0.98)	3.04 (0.88)	2.94 (0.91)	3.11 (0.81)
3. The gratitude of those people I have helped	3.23 (0.88)	3.27 (0.83)	3.09 (0.84)	3.07 (0.86)
4. Successful education or studies	3.18 (0.93)	3.15 (0.87)	2.89 (0.92)	3.11 (0.86)
5. Successful political involvement	2.10 (1.02)	1.91 (1.05)	1.58 (0.85)	1.56 (0.81)
6. My prayers have been answered	3.20 (0.93)	2.93 (1.07)	2.91 (1.06)	3.16 (0.98)
7. The support of family and friends	3.39 (0.81)	3.36 (0.88)	3.36 (0.80)	3.51 (0.88)
8. Doing good for a meaningful cause	3.44 (0.76)	3.39 (0.83)	3.27 (0.78)	3.31 (0.74)
9. I have been always lucky	2.26 (0.91)	2.45 (1.11)	2.28 (0.90)	2.27 (0.97)
10. I have experienced God's support	3.26 (0.91)	3.18 (1.06)	3.14 (1.06)	3.24 (1.09)
11. I have earned a lot of money	1.98 (0.89)	2.19 (0.92)	1.98 (0.91)	2.15 (0.85)
12. I have profited from technological progress	2.44 (1.02)	2.47 (1.02)	2.20 (0.96)	2.35 (0.87)
13. I have recovered well from illness	2.94 (1.03)	2.78 (1.04)	2.75 (1.02)	3.02 (1.01)
14. I have solved difficult problems	3.20 (0.90)	3.05 (0.91)	3.04 (0.81)	3.11 (0.66)
15. Other people have helped me in difficult times	3.06 (0.90)	3.09 (0.91)	2.91 (0.91)	3.15 (0.87)
16. I have experienced great parties and concerts	2.52 (1.09)	2.53 (1.15)	2.28 (1.01)	2.15 (0.93)
17. Pleasant experiences in the free nature	3.02 (0.91)	3.11 (0.95)	2.95 (0.91)	3.15 (0.89)
18. My professional successes and achievements	3.05 (0.93)	2.94 (0.97)	2.72 (0.95)	2.84 (0.98)
n	132	137	141	55

The average scores for the individual item responses to the Sources of Hope Questionnaire across the four age groups are displayed in Table 2. For both the emerging adulthood and early adulthood groups, item 8 (*Doing good for a meaningful cause*) had the highest mean, followed by item 7 (*The support of family and friends*), whereas for both the middle adulthood and older adulthood groups, item 7 had the highest mean, followed by item 8. Item 10 (*I have experienced God's support)* was rated amongst the highest four sources of

hope across all groups. Item 5 (*Successful political involvement*), item 11 (*I have earned a lot of money*) and item 1 (*Participation at political events*) had the lowest means across the four age groups. The standard deviations were all fairly similar across the groups and were all smaller than their respective means, thus indicating no cause for concern.

4.2.2 One-Way Analyses of Variance (ANOVAs)

Separate one-way ANOVAs were conducted to examine differences in item scores on the 18-item Sources of Hope Questionnaire across the four age groups. On inspecting the boxplots and normal P-P plots, the distribution of individual item scores within each age group revealed a moderate amount of skewness across certain items. Considering that the ANOVA is considered fairly robust to violations of normality, the analysis proceeded with caution. Significant results from Levene's test indicated that five items violated the assumption for homogeneity of variance, namely, item 1, $F(3,461) = 4.77$, $p = <.01$; item 5 $F(3,461) = 3.69$, $p = .012$; item 9, $F(3,461) = 6.21$, $p = <.001$; item 14, $F(3,461) = 5.52$, $p = <.001$; and item 16, $F(3,461) = 4.42$, $p = <.01$. To account for this assumption violation and the unequal group sizes, the Brown-Forsythe *F* correction was employed for all analyses, along with the Games-Howell post hoc test (Field, 2017).

The results from the separate omnibus tests revealed that there were no significant differences across the four age groups in the responses to most items of the Sources of Hope Questionnaire. However, significant between group differences were found in the responses to item 1 (*Participation at political events*), $F(3,405.84) = 3.89$, $p = <.01$, $\eta^2 = .023$; item 5 (*Successful political involvement*), $F(3,405.38) = 8.80$, $p = <.001$, $\eta^2 = .051$; and item 18 (*My professional successes and achievements*), $F(3,342.94) = 2.77$, $p = <.05$, $\eta^2 = .018$. Games-Howell's post hoc tests revealed that for item 1, the emerging adulthood group ($M = 1.73$, $SD = 0.85$) scored significantly higher than the middle adulthood group ($M = 1.41$, $SD = 0.76$, $p <.01$). In response to item 5, the emerging adulthood ($M = 2.10$, $SD = 1.02$) and early adulthood

groups (M = 1.91, SD = 1.05) scored significantly higher than the middle adulthood group (M = 1.58, SD = 0.85, p <.001, p <.05). The emerging adulthood group also scored significantly higher than the older adulthood group (M = 1.56, SD = 0.81, p <.01) on this item. Finally, the emerging adulthood group (M = 3.05, SD = 0.93) rated item 18 significantly higher than the middle adulthood group (M = 2.72, SD = 0.95, p <.05).

4.2.3 Principal Factor Analysis

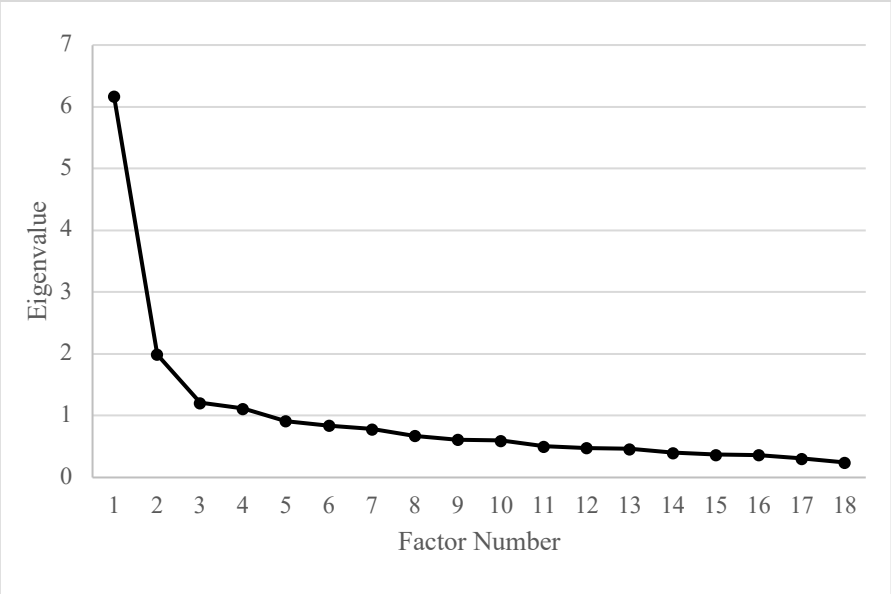
A Principal factor analysis (PFA) was conducted on the 18-item Sources of Hope Questionnaire, using the scores collected from all four age groups (N = 465). This analysis was performed to compress the data into a smaller set of variables and identify specific types of hope sources for subsequent analyses. The correlation matrix indicated no values with perfect collinearity and with intercorrelations larger than r = 0.8. Furthermore the determinant under the correlation matrix was above the minimum value of 0.00001, which suggests there were no severe problems of multicollinearity or singularity (Field, 2009). However, some intercorrelations were lower than r = 0.3, which may indicate difficulties with extracting common factors (Field, 2017; Tredoux & Durrheim, 2019). Bartlett's test of sphericity was significant (x^2 (153) = 3034.47, p < 0.001) and the Kaiser-Meyer-Olkin (KMO) was 0.874, demonstrating good sampling adequacy. Furthermore, the anti-image matrix revealed that all individual KMO values were greater than the acceptable level of 0.50 and most of the partial correlations were approaching zero. Overall, these statistics revealed that PFA was an appropriate method of analysis for this dataset (Field, 2009; Tredoux & Durrheim, 2019).

Employing Kaiser's criteria, preliminary PFA identified a four-factor solution. However, while Horne's parallel analysis recommended the retention of two factors, Cattell's Scree Plot (Figure 1) suggested that either a two- or four-factor structure would be appropriate for the data. To evaluate the suitability of each of these solutions, separate analyses were performed again, specifying the extraction of two, three, and four factors. A Varimax orthogonal rotation

was performed to improve the interpretability of the factors (Field, 2009; Krafft & Walker, 2018b). After examining the results of each of the separate analyses, it appeared that the four-factor solution yielded the most parsimonious and representative structure. This conclusion was reached after comparing the communality estimates, reproduced correlations, factor loadings and cross factor loadings as well as evaluating the theoretical interpretability of the rotated factors (Field, 2009; Hair et al., 2009; Tredoux & Durrheim, 2019).

Figure 1

Scree Plot of Factor Extraction



Factors three and four were only defined by two loading items (items 1 and 5 and items 6 and 10, respectively), which is below the general recommendation of three items (Costello & Osborne, 2005; Yong & Pearce, 2013). The items were relatively highly correlated with each other ($r = 0.665$ and $r = 0.727$) and weakly correlated with the other items, suggesting that they loaded onto reliable factors (Costello & Osborne, 2005; Yong & Pearce, 2013). In addition, the factors encompassed two very distinct and important hope sources and therefore the removal of one or both of the items in each factor would have resulted in a considerable loss of information (Field, 2009). Accordingly, both factors were retained.

Table 3

Communalities of Items Before and After Factor Extraction

	Item	Initial	Extraction
1.	Participation at political events	.476	.622
2.	Memories of a happy childhood	.366	.419
3.	The gratitude of those people I have helped	.372	.431
4.	Successful education or studies	.366	.336
5.	Successful political involvement	.495	.667
6.	My prayers have been answered	.605	.909
7.	The support of family and friends	.437	.452
8.	Doing good for a meaningful cause	.440	.500
9.	I have been always lucky	.395	.384
10.	I have experienced God's support	.542	.557
11.	I have earned a lot of money	.477	.525
12.	I have profited from technological progress	.384	.425
13.	I have recovered well from illness	.304	.273
14.	I have solved difficult problems	.449	.493
15.	Other people have helped me in difficult times	.318	.312
16.	I have experienced great parties and concerts	.371	.396
17.	Pleasant experiences in the free nature	.362	.346
18.	My professional successes and achievements	.471	.485

Note. Extraction Method: Principal Axis Factoring.

In Table 3, a wide range of communality estimates, with values from 0.273 to 0.909, is displayed. Due to the relatively large sample size and considering that none of the communality estimates fell below Child's (2006) recommended cut-off of 0.2, none of the items were removed (Field, 2017; MacCallum et al., 1999). The reproduced correlations output showed that there were 24 residuals (15.0%) greater than 0.05. These statistics indicated that the four-factor structure was a good model of the original dataset (Field, 2009). These four factors explained 57.60% of the shared item variance. The rotated factor matrix, which is presented in Table 4, revealed clear factor loadings, all of which were above the significant value of 0.3 (Field, 2017). The four factors were named as follows: Personal mastery and hedonic experiences (F1), Social-relational experiences (F2), Religious experiences (F3) and Political experiences (F4).

Table 4

Factor Loadings for Principal Axis Factoring with Varimax Rotation of the Sources of Hope (N=465)

Item		Rotated factor loadings			
		Personal mastery and hedonic experiences	Social-relational experiences	Religious experiences	Political experiences
11.	I have earned a lot of money	**.657**			
18.	My professional successes and achievements	**.623**			
12.	I have profited from technological progress	**.620**			
14.	I have solved difficult problems	**.592**			
16.	I have experienced great parties and concerts	**.531**			
9.	I have been always lucky	**.526**			
17.	Pleasant experiences in the free nature	**.453**	.375		
13.	I have recovered well from illness	**.347**	.312		
8.	Doing good for a meaningful cause		**.633**		
3.	The gratitude of those people I have helped		**.619**		
2	Memories of a happy childhood		**.606**		
7.	The support of family and friends		**.595**		
4.	Successful education or studies	.318	**.439**		
15.	Other people have helped me in difficult times	.333	**.385**		
6.	My prayers have been answered		.325	**.879**	
10	I have experienced God's support		.320	**.654**	
5.	Successful political involvement				**.757**
1.	Participation at political events				**.735**
Eigenvalues		2.905	2.566	1.596	1.464
% of variance		16.139	14.257	8.865	8.136

Note. Loadings > .30 appear in bold. Loadings < .30 have been suppressed.

4.5 Sources of Hope as Predictors of Dispositional Hope, Perceived Hope and Well-Being

4.5.1 Correlations

Pearson correlation coefficients provided information about the strength and direction of the relationships between the independent variables (personal mastery and hedonic experiences (F1), social-relational experiences (F2), religious experiences (F3) and political experiences (F4)) and the dependent variables (perceived hope, dispositional hope and well-being) across the four age groups. The correlation statistics are summarised in Tables 5 to 8. Only the statistically significant correlations (all *p*s < .01) are discussed in this section.

Table 5
Correlations Between all Variables in the Emerging Adulthood Group (n=132)

		1	2	3	4	5	6	7
1	Perceived Hope	-	.64**	.46**	.09	.45**	.18*	-.02
2	Dispositional Hope	.64**	-	.50**	.22**	.41**	.16	.13
3	Well-being	.46**	.50**	-	.29**	.35**	.07	.16
4	Personal mastery and hedonic experiences (F1)	.09	.22**	.29**	-	.01	.01	.04
5	Social-relational experiences (F2)	.45**	.41**	.35**	.01	-	-.07	-.04
6	Religious experiences (F3)	.18*	.16	.07	.01	-.07	-	-.02
7	Political experiences (F4)	-.02	.13	.16	.04	-.04	-.02	-

Note. *p<.05 **p<.01 (two tailed)

Table 6

Correlations Between all Variables in the Early Adulthood Group (n=137)

		1	2	3	4	5	6	7
1	Perceived Hope	-	.71**	.63**	.46**	.37**	.40**	.20*
2	Dispositional Hope	.71**	-	.67**	.64**	.23**	.29**	.18*
3	Well-being	.63**	.67**	-	.53**	.30**	.25**	.20*
4	Personal mastery and hedonic experiences (F1)	.46**	.64**	.53**	-	.06	.12	.04
5	Social-relational experiences (F2)	.37**	.23**	.30**	.06	-	-.03	.02
6	Religious experiences (F3)	.40**	.29**	.25**	.12	-.03	-	.10
7	Political experiences (F4)	.20*	.18*	.20*	.04	.02	.10	-

Note. *p<.05 **p<.01 (two tailed)

Table 7

Correlations Between all Variables in the Middle Adulthood Group (n=141)

		1	2	3	4	5	6	7
1	Perceived Hope	-	.60**	.43**	.21*	.32**	.27**	.05
2	Dispositional Hope	.60**	-	.55**	.50**	.21*	.10	.06
3	Well-being	.43**	.55**	-	.37**	.28**	.05	.09
4	Personal mastery and hedonic experiences (F1)	.21*	.50**	.37**	-	-.07	-.06	-.08
5	Social-relational experiences (F2)	.32**	.21*	.28**	-.07	-	.02	-.02
6	Religious experiences (F3)	.27**	.10	.05	-.06	.02	-	-.09
7	Political experiences (F4)	.05	.06	.09	-.08	-.02	-.09	-

Note. *p<.05 **p<.01 (two tailed)

Table 8
Correlations between all Variables in the Older Adulthood Group (n=55)

		1	2	3	4	5	6	7
1	Perceived Hope	-	.59**	.60**	.26	.45**	.32*	.00
2	Dispositional Hope	.59**	-	.70**	.47**	.39**	.06	.13
3	Well-being	.60**	.70**	-	.47**	.23	-.01	.09
4	Personal mastery and hedonic experiences (F1)	.26	.47**	.47**	-	-.04	-.13	.08
5	Social-relational experiences (F2)	.45**	.39**	.23	-.04	-	.19	.00
6	Religious experiences (F3)	.32*	.06	-.01	-.13	.19	-	.06
7	Political experiences (F4)	.00	.13	.09	-.08	.00	-.06	-

Note. *p<.05 **p<.01 (two tailed)

With regards to the relationships between the dependent variables, dispositional hope was strongly positively correlated with both perceived hope and well-being across all four age groups. There were strong positive correlations between perceived hope and well-being in the early adulthood ($r(135) = .63$, $p < .01$) (Table 6) and older adulthood groups ($r(53) = .60$, $p < .01$) (Table 8), and moderate positive correlations in the emerging adulthood ($r(130) = .46$, $p < .01$) (Table 5) and middle adulthood groups ($r(139) = .43$, $p < .01$) (Table 7).

In relation to the relationships between the independent and dependent variables, in the emerging adulthood group, moderate positive correlations were found between F2 and all three of the dependent variables, while F1 had weak positive correlations with dispositional hope ($r(130) = .22$, $p < .01$) and well-being ($r(130) = .29$, $p < .01$). In the early adulthood group, F1, F2 and F3 had significant correlations with each dependent variable. The strongest positive correlations were noted between F1 and dispositional hope, ($r(133) = .64$, $p < .01$) followed by

F1 and well-being ($r(133) = .53$, $p < .01$). Similarly, in the middle adulthood group, a strong positive correlation was found between F1 and dispositional hope ($r(139) = .50$, $p < .01$) as well as a moderate association with well-being ($r(139) = .37$, $p < .01$). While F2 was moderately positively correlated with perceived hope ($r(139) = .32$, $p < .01$) and weakly with well-being ($r(139) = .28$, $p < .01$), F3 had a weak positive correlation with perceived hope ($r(139) = .27$, $p < .01$). Finally, in the older adulthood group, F1 had moderate positive correlations with dispositional hope ($r(53) = .47$, $p < .01$) and well-being ($r(53) = .47$, $p < .01$), whereas F2 had moderate positive correlations with perceived hope ($r(53) = .45$, $p < .01$) and dispositional hope ($r(53) = .39$, $p < .01$). Unlike the other three groups, no significant relationship was found between F2 and well-being in the older adulthood group.

4.5.2 Multiple Regression

Multiple regression analyses were conducted to investigate how different sources of hope (personal mastery and hedonic experiences (F1), social-relational experiences (F2), religious experiences (F3) and political experiences (F4)) influence the levels of dispositional hope, perceived hope and well-being within different age groups. Demographic variables including health status, education level, family status and population group were entered as control variables in each regression model.

4.5.2.1 Emerging Adulthood.

4.5.2.1.1 Dispositional Hope. After accounting for the control variables, F1 and F2 explained a further 19.07% of the variance in levels of dispositional hope in the emerging adulthood group, $F(6, 125) = 7.91$, $p < .001$. Hence, higher ratings on F1 and F2 are significantly associated with higher levels of dispositional hope. The β values indicate that F2 ($\beta = .37$) has a greater influence on the model compared to F1 ($\beta = .25$) (Table D1 in Appendix D).

4.5.2.1.2 Perceived Hope. It was found that F2 was the only factor to significantly predict perceived hope in the emerging adulthood group, when accounting for the influence of the control variables. F2 contributed 15.8% of the variance in the model, $F(5, 126) = 9.82$, $p < .001$, indicating that higher ratings on F2 are significantly associated with higher levels of perceived hope ($\beta = .41$) (Table D2 in Appendix D).

4.5.2.1.3 Well-Being. F1 and F2 significantly predicted well-being amongst the emerging adulthood group and collectively explain 16.27% of the variance in the model after partialling out the effects of the control variables, $F(6, 125) = 9.41$, $p < .001$. Higher ratings on F1 and F2 are significantly correlated with higher levels of well-being. F2 ($\beta = .32$) has a greater effect on the model than F1 ($\beta = .25$) (Table D3 in Appendix D).

4.5.2.2 Early Adulthood.

4.5.2.2.1 Dispositional Hope. It was found that only F1 significantly predicted dispositional hope in the early adulthood group, after accounting for the control variables. 27.2% of the variance in the model can be explained by F1, $F(5, 131) = 24.47$, $p < .001$, indicating that higher ratings on F1 are significantly associated with higher levels of dispositional hope ($\beta = .56$) (Table D4 in Appendix D).

4.5.2.2.2 Perceived Hope. After accounting for the influence of the control variables, F1, F2 and F3 significantly predicted perceived hope in the early adulthood group and collectively explained 32.30% of the variance in perceived hope scores, $F(7, 129) = 17.03$, $p < .001$. Hence, higher ratings on F1, F2 and F3 are significantly correlated with higher levels of perceived hope. F1 is the strongest predictor of perceived hope ($\beta = .36$), followed by F2 ($\beta = .34$) and F3 ($\beta = .31$) (Table D5 in Appendix D).

4.5.2.2.3 Well-Being. After accounting for the control variables, F1 and F2 significantly predicted levels of well-being in the early adulthood group and collectively explained 22.40% of the variance in the model, $F(6, 130) = 17.47$, $p < .001$. Higher ratings on F1 and F2 are

significantly correlated with higher levels of well-being. F1 (β =.43) has a greater effect on the model than F2 (β =.24) (Table D6 in Appendix D).

4.5.2.3 Middle Adulthood.

4.5.2.3.1 Dispositional Hope. After accounting for the control variables, F1 was the only significant predictor of dispositional hope amongst middle adults, explaining 19.81% of the total variance in the model, $F(5, 135) = 13.73$, $p < .001$, suggesting that higher ratings on F1 are significantly associated with higher levels of dispositional hope (β=.48) (Table D7 in Appendix D).

4.5.2.3.2 Perceived Hope. F1, F2 and F3 significantly predicted perceived hope amongst the middle adulthood group after accounting for the effects of the control variables. The three factors collectively explain 18.33% of the variance in the model, indicating that higher ratings on F1, F2 and F3 are significantly associated with higher levels of perceived hope, $F(7, 133) = 7.97$, $p < .001$. Comparing the individual influence of the factors on the overall model, all three factors contribute fairly equal amounts of variance, F2 (β=.29), F1 (β=.28) and F3 (β=.26) (Table D8 in Appendix D).

4.5.2.3.3 Well-Being. F1 and F2 significantly predicted well-being amongst the middle adulthood group, after partialling out the influence of the control variables. Both factors collectively explain 16.11% of the total variance in well-being scores, $F(6, 134) = 8.22$, $p < .001$. Higher ratings on F1 and F2 are significantly correlated with higher levels of well-being. F1 (β =.34) has a greater effect on the model than F2 (β =.28) (Table D9 in Appendix D).

4.6 Chapter Summary

The results from the statistical analyses conducted in this study were presented in this chapter. First, the MANOVA findings concluded that there were significant differences in the combined interactions of the three dependent variables across the emerging, early, middle and

older adulthood groups. However, when the dependent variables were compared individually, the univariate analyses revealed that there were no significant differences between the levels of dispositional hope, perceived hope and well-being across the different age groups. Second, an inspection of the average item scores on the Sources of Hope Questionnaire revealed that item 7 (*The support of family and friends*) and item 8 (*Doing good for a meaningful cause*) were the most highly rated sources of hope across all four age groups. Item 1 (*Participation at political events*), item 5 (*Successful political involvement*) and 11 (*I have earned a lot of money*) had the lowest mean scores in all the groups. Third, separate one-way ANOVAs revealed that in response to most of the sources of hope items, the different age groups reported similar mean scores. However, significant age-related differences were noted in the responses to item 1 (*Participation at political events*), item 5 (*Successful political involvement*) and item 18 (*My professional successes and achievements*).

Fourth, four factors emerged when the principal factor analysis was conducted on the 18-item Sources of Hope Questionnaire: Personal mastery and hedonic experiences (F1), Social-relational experiences (F2), Religious experiences (F3) and Political experiences (F4). Finally, the results from the multiple regression analyses demonstrated that F2 was the strongest predictor of dispositional hope, perceived hope and well-being in the emerging adulthood group. However, F1 contributed the most variance in all three regression models for the early adulthood group. Similarly, while F1 was found to be the strongest predictor of dispositional hope and well-being in the middle adulthood group, F2 contributed the most variance in the perceived hope regression model. The results of this study are explored in more detail in the following chapter.

Chapter 5: Discussion of Findings

5.1 Chapter Overview

In this chapter, the results of this study are discussed in relation to previous studies. Possible explanations for the findings are also explored.

5.2 Levels of Dispositional Hope, Perceived Hope and Well-Being

The findings revealed a significant difference (p = .049) between the emerging, early, middle and older adulthood groups' overall interaction of dispositional hope, perceived hope and well-being. However, no significant differences were found when comparing the average scores on each variable across the four age groups. Hence, these findings suggest that collectively, the combined effect of the three variables accounted for significant between-group differences. However, individually, the levels of dispositional hope, perceived hope and well-being were comparable across the four age groups. These results are subsequently discussed in the context of existing research.

5.2.1 Dispositional Hope

The findings related to no significant age-related differences in levels of dispositional hope concur with those of Bronk et al. (2009) and Valle et al. (2006). One may deduce that these findings support Snyder's (2002) argument that dispositional hope is both a cognitive construct and a personality trait, which is likely to remain relatively stable across the lifespan (Krafft et al., 2021). Boyce and Harris (2013) found no significant relationship between age and average levels of dispositional hope in a South African study that examined inter-group differences in hope between members of specific demographic groups. However, when investigating individual item responses, Boyce and Harris (2013) noted that although the younger respondents scored significantly higher on the agency subscale of dispositional hope in comparison to the older cohorts, no significant differences were found across scores on the

pathway scale. This finding suggests that younger adults may be more confident in their goal achieving potential than older adults. However, when combined with the pathways component, the cumulative effect on dispositional hope levels was not significantly different to the other age groups (Boyce & Harris, 2013; Krafft et al., 2021), thus providing further evidence that hope is a multidimensional construct, which cannot be measured along one singular scale.

5.2.2 Perceived Hope

To date, very few studies have examined perceived hope across different developmental stages. However, two studies from this limited body of research revealed that the older adulthood groups reported the highest levels of perceived hope (Krafft & Walker, 2018a; Slezáčková et al., 2018). On the contrary, the results of this study demonstrated no significant differences across the four age groups in the average scores on the perceived hope scale. Due to the small sample size of the older adult group in this study, it could be argued that the findings are not representative of older adults as a population. Alternatively, these contradictory findings may be explained by confounding psychosocial factors, such as health status, education level, family status and population group, which were not controlled for in this particular statistical analysis.

The observed developmental trends in perceived hope may be sample specific because existing research has originated exclusively from European countries. In many European countries such as Switzerland, older adults have access to high standards of living due to social welfare systems that provide the elderly with additional support (Baeriswyl & Oris, 2021; WHO, 2015). It is possible that older adults in such contexts enjoy high levels of perceived hope because of this psychosocial and financial security as well as knowledge acquired from previous life challenges (Baeriswyl & Oris, 2021; Krafft & Walker, 2018a; Perrig-Chiello et al., 2018). On the contrary, the quality of life older adults in South Africa are afforded is comparably lower because of the lack of social infrastructure in the country, including

inadequate healthcare and pension systems (WHO, 2015; Yaya et al., 2020). Consequently, unlike their European counterparts, levels of perceived hope are less likely to be higher amongst older adults in South Africa. However, due to the lack of available literature and inconclusive findings, further research is necessary to explore the levels of perceived hope amongst South African adults.

5.2.3 Well-Being

Finally, there were no significant differences in levels of well-being across the four age groups. These results concur with Khumalo et al. (2012) who employed Keyes' (2002, 2005, 2009) model of complete mental health to define well-being. However, a large number of studies that have explored developmental trends in well-being have revealed conflicting findings (Hitchcott et al., 2020; Mahlo & Windsor, 2020; Perrig-Chiello et al., 2018; Stone et al., 2010; Xavier Gómez-Olivé et al., 2010). While Perrig-Chiello et al. (2018) found that levels of well-being increased between middle adulthood and older adulthood, Xavier Gómez-Olivé et al. (2010) reported that, in comparison to younger participants, those over 70 years obtained the lowest well-being scores. Hence, as noted previously, some of the observed discrepancies may be due to contextual differences between samples. Khumalo et al. (2012) proposed that inconsistencies in their study may be better ascribed to an infinite number of confounding factors, including personality dispositions and differences in socioeconomic contexts. Other researchers have highlighted the problems of identifying aging effects by employing cross-sectional research designs due to the inherent interpersonal variance across participants (Perrig-Chiello et al., 2018).

5.3 Most Important Sources of Hope

Item means on the Sources of Hope questionnaire offered insight into the experiences that the participants perceived to be important for enhancing their levels of hope. Across all four

age groups, item 7 (*The support of family and friends*), item 8 (*Doing good for a meaningful cause*) and item 10 (*I have experienced God's support*) were amongst the first four sources of hope with the highest scores. While the emerging, early and middle adulthood groups rated item 3 (*The gratitude of those people I have helped*) amongst the four highest sources of hope, the older adulthood group rated item 6 (*My prayers have been answered*) fourth. Hence, relationships, prosocial activities and religious experiences were identified as important sources of hope for all the adult age groups. Wilson et al. (2021) reached similar conclusions in their South African study, highlighting that hope is strengthened through the interconnections among the individual, community and spiritual entities.

The findings related to interpersonal sources of hope are in accordance with Krafft and Walker (2018a) who administered an altered version of the Sources of Hope questionnaire to German-speaking adults of varying ages. Modified versions of items 3, 7 and 8 were reported amongst the five most endorsed experiences for strengthening levels of hope amongst the sample. While Krafft and Walker (2018a) did not examine age-related differences, their findings revealed that social and altruistic experiences are important sources of hope. While the association between social interactions and hope has been reported in the literature, researchers have highlighted specifically that hope is fostered through positive relationships (Butkovic et al., 2020; Hillbrand & Young, 2008; Karayigit & Wood, 2021; Krafft & Choubisa, 2018; Wilson et al., 2021). These findings have been replicated in studies that have employed samples from different age groups, thus suggesting that positive relationships provide a valuable source of hope at every stage of development (Butkovic et al., 2020; Karayigit & Wood, 2021; Perrig-Chiello et al., 2018).

Research has shown that altruistic experiences enhance individuals' perceptions of meaning and purpose in their lives, which have been closely linked to increased hopefulness and psychosocial functioning (Dezutter et al., 2014; Guse & Shaw, 2018; Klein, 2017; Lin et

al., 2022). Klein (2017) explained that engaging in prosocial activities such as helping others is one of the most basic forms of social connection that reinforces social acceptance and improves levels of self-worth. Hence, in accordance with the findings from previous research, the results from this study support the idea that individuals find hope through positive interpersonal connections.

In addition, the findings revealed that participants across the four age groups also sourced hope through religious experiences. Comparable results have been reported by Durmuş and Öztürk (2022) and Margelisch (2018) whose samples constituted middle age and older adulthood groups. Similarly, research involving palliative care patients of varying ages has also highlighted the value of religious coping in the maintenance of hope during treatment (Beng et al., 2020; Sabanciogullari & Yilmaz, 2021). On the contrary, Krafft and Choubisa (2018) found that religious experiences constituted one of the least important sources of hope amongst younger adults from India and Germany. Margelisch (2018) arrived at similar conclusions, noting that religious activities were valued more highly amongst middle and older adult groups in Switzerland. Hence, this study's finding that emerging and early adults in South Africa source hope through religious experiences contradicts the empirical findings from previous international studies.

An increasing number of South African qualitative studies have also indicated that spirituality is an important provider of hope for young adults in this context (Alberts & Bennett, 2017; Nell, 2014; Wilson et al., 2021). Nell (2014) suggested that in comparison to other societies, spirituality and religion may have a different meaning and value for many young people in South Africa. Nell (2014) found that in the current socioeconomic climate, religion provides young South African adults with a sense of security and belonging, particularly when they encounter unfavourable life circumstances. The participants in Nell's (2014) study noted that their faith gave them confidence and motivation to confront difficult situations and work

towards their future goals. Similarly, Wilson et al. (2021) found that hope and faith are closely interlinked in the African context and proposed that spirituality is not only a source of hope, but a form of hope in itself. Accordingly, it is plausible that South African adults of all ages may rely on religious experiences to generate hope for the future.

Finally, when comparing between-group differences, with the exception of three items, the mean item scores were similar across the four age groups. Significant between group differences were found among responses to item 18 (*My professional successes and achievement*), suggesting that accomplishments are more important sources of hope for emerging adults than middle adults. This finding concurs with Butkovic et al. (2020) and Dwivedi and Rastogi (2016) who found that markers of achievement are highly valued by the emerging adulthood group. The emerging adulthood group scored significantly higher on item 1 (*Participation at political events*) compared to the middle adulthood group and significantly higher than all the other groups on item 5 (*Successful political involvement*). However, relative to the other sources of hope, the participants from all four groups perceived political experiences had the least influence on levels of hope.

5.4 Relationships Between the Sources of Hope and Levels of Dispositional Hope, Perceived Hope and Well-Being

A Principal factor analysis (PFA) using a Varimax orthogonal rotation reduced the 18 items from the Sources of Hope questionnaire into four factors, namely: *personal mastery and hedonic experiences, social-relational experiences*, *religious experiences* and *political experiences*. These factors represent different categories of hope sources, which were entered as independent predictors in the regression models.

Separate hierarchical multiple regression models were conducted in order to examine which sources of hope (factors) are the strongest predictors of dispositional hope, perceived

hope and well-being at different developmental stages. The results from the emerging adulthood group differed from those of the early adulthood and middle adulthood models. Hence, while all four age groups identified similar experiences as important sources of hope, the regression analyses indicated that different hope providers were stronger predictors of hope and well-being at different developmental stages. These findings indicate that the sources of hope associated with the highest levels of hope and well-being may be specific to different age groups. Thus, one may deduce that certain hope sources are closely associated with particular developmental tasks. The results from each age group are subsequently discussed.

5.4.1 Emerging Adulthood

In the emerging adulthood group, *socio-relational experiences* were the strongest predictor of all three variables. Thus, interpersonal relationships have the most influence on levels of hope and well-being for emerging adults. These findings are largely supportive of previous research that has highlighted that close interpersonal relationships provide an important source of meaning, life satisfaction and well-being for this age group (Bernardo et al., 2018; Booker et al., 2021; Duncan et al., 2018; Karayigit & Wood, 2021). Because emerging adulthood is a period marked by uncertainty and personal exploration, Booker et al. (2021) proposed that maintaining a sense of interconnectedness and social belonging is closely associated with successful development and well-being throughout this period. There is also a strong focus on the future during this period because many emerging adults often encounter decisions related to their careers and intimate relationships (Arnett, 2000). Research has shown that secure attachment relationships foster a sense of *trust* in the future and promote hopeful cognitions, enabling them to plan and realise their goals (Booker et al., 2021; Duncan et al., 2018; Reed-Fitzke & Lucier-Greer, 2021).

Personal mastery and hedonic experiences also had a significant predictive effect on dispositional hope and well-being in the emerging adulthood group, indicating that feelings of

achievement and pleasure are positively associated with goal-oriented aspects of hope and overall well-being. This concurs with Butkovic et al. (2020) and Hollifield and Conger (2015) who highlighted that maintaining a sense of competence is predictive of positive psychological functioning during emerging adulthood. It is noteworthy that while the emerging adulthood group rated religious experiences as an important source of hope, the regression models indicated that it was not a significant predictor for any of the three variables. These results suggest that sourcing hope solely from external hope providers such as religious figures, without also relying on internal sources, may undermine levels of hope and well-being during emerging adulthood (Bernardo et al., 2018).

5.4.2 Early and Middle Adulthood

Personal mastery and hedonic experiences were the strongest predictor for all three dependent variables. Personal mastery and hedonic experiences are both associated with positive feelings towards the self and/or environment. While they refer to different forms of subjective experiences, they both relate to a desire for self-centred satisfaction, either through a sense of accomplishment or through experiences of pleasure (Joshanloo, 2016). Thus, these findings suggest that self-gratifying experiences have the greatest influence on levels of hope and well-being for early and middle adults. The developmental tasks of early and middle adulthood traditionally centre around relational activities associated with being a partner, parent, colleague or adult child, leaving very little time for personal goals and leisure activities (Eriksson et al., 2020; Freund, 2020; Ivtzan et al., 2015; Lachman, 2002, 2004). Considering that these tasks typically involve *caring* for others, it is interesting that the self-focused sources were the strongest predictors of hope and well-being. These results may imply that prioritising self-centred satisfaction is particularly important during a period associated with compromise, self-sacrifice and acts of generosity. However, further research is essential to explore the validity of this interpretation.

Social-relational experiences were the second largest predictor in the perceived hope and well-being models. These findings are in accordance with previous research that has revealed the importance of mutually supportive relationships during this period (Bailey & Snyder, 2007; Butkovic et al., 2020; Marques & Gallagher, 2017). In addition, unlike the results from the emerging adult group, *religious experiences* had a significant predictive effect on levels of perceived hope for the early adult and middle adult groups, which concurs with the findings of Margelisch (2018) and Nell (2014). This between group variance may imply that religion plays different roles and carries different levels of meaning and significance for different age groups.

5.4.3 Older Adulthood

Due to the small sample of the older adulthood group, no regression models could be conducted. Hence, the discussion is limited to the findings of the correlational analyses and accordingly, interpreted tentatively. The results revealed that *personal mastery and hedonic experiences* were significantly positively associated with dispositional hope and well-being, both of which had the same Pearson correlation coefficients. This finding concurs with Long et al. (2020) who found that experiences of mastery in older adulthood were associated with increased hope and markers of well-being. When experiencing declining physical health as well as the loss of parental and work-related responsibilities, older adults tend to enjoy fewer opportunities to satisfy the need for competence. Hence, research has revealed that a sense of mastery and autonomy is particularly important during older adulthood (Lin et al., 2022; Perrig-Chiello et al., 2018). *Social-relational experiences* were also positively correlated with dispositional hope and perceived hope. These preliminarily results are supported by Durmuş and Öztürk (2022) and Tomaz et al. (2021) who found that lack of social contact had a negative effect on older adults' levels of hope during the Covid-19 pandemic.

It is noteworthy that the correlational statistics across all four age groups revealed that while *personal mastery and hedonic experiences* were significantly associated with dispositional

hope, *socio-relational experiences* were significantly related to perceived hope. This provides support for the theoretical distinction between dispositional hope and perceived hope. Dispositional hope is closely related to motivation, self-efficacy and a sense of personal control, whereas the construction of perceived hope defines hope as a positive belief in something that may not be in one's personal sphere of control (Krafft & Walker, 2018b). Hence, it is understandable that while dispositional hope is commonly activated through self-gratifying experiences that promote self-esteem and perceived control, the support and trust gained from positive relationships has an influence on perceived hope.

5.5 Chapter Summary

In this chapter, the three research objectives of this study were discussed in relation to the present findings, which, in turn, were compared to the results of previous studies. First, statistical analyses revealed that the four age groups, namely, the emerging adulthood, early adulthood, middle adulthood and older adulthood groups, revealed similar levels on the hope and well-being measures. In addition, all the groups endorsed positive interpersonal relationships and religious experiences as the most important sources of hope, thus suggesting that individuals find hope predominantly through connecting with other people and/or spiritual entities. Despite these commonalities, the findings revealed that the sources of hope associated with the highest levels of hope and well-being varied between the age groups. *Social-relational experiences* had the greatest impact on overall levels of hope and well-being in the emerging adulthood group. On the contrary, *personal mastery and hedonic experiences* was the strongest predictor of all three variables in the early and middle adulthood groups.

In Chapter 6, the main findings are summarised. In particular, how this study contributes to the growing body of literature on hope and well-being in the South African context is highlighted.

Chapter 6: Conclusion, Limitations and Recommendations

6.1 Overview

In this final chapter, the key findings of the study are integrated, reviewing how the research objectives were realised. Subsequently, the limitations of the study as well as recommendations for future research are outlined.

6.2 Summary of Research Findings

The broad aim of this study was to examine the relationships between specific sources of hope and levels of dispositional hope, perceived hope and well-being across four age groups in South Africa. Accordingly, three main objectives were formulated. The first research objective sought to compare the levels of dispositional hope, perceived hope and well-being amongst emerging adulthood, early adulthood, middle adulthood and older adulthood groups. The findings revealed that the participants across the four age groups reported similar levels of dispositional hope, perceived hope and well-being. These results concur with research on dispositional hope (Bronk et al., 2009; Krafft et al., 2021; Valle et al., 2006). However, they contradict findings from European countries, which have found significant age differences in levels of perceived hope and well-being (Bauer et al., 2017; Hitchcott et al., 2020; Krafft & Walker, 2018a; Slezáčková et al., 2018). This discrepancy may be due to contextual differences between European and South African populations. Confounding psychosocial factors, such as family or health status, may have also accounted for some of the variance.

The second research objective was concerned with identifying and comparing the most important sources of hope across the four age groups. The results showed that all the age groups perceived positive relationships and religious experiences to be the most important sources of hope. South African research has reached similar conclusions, highlighting that hope is strengthened through interconnections among the individual, community and spiritual entities

(Alberts & Bennett, 2017; Nell, 2014; Wilson et al., 2021). These findings challenge the notion that the importance of different sources of hope are perceived variously during different developmental stages (Butkovic et al., 2020; Erikson, 1968; Henning et al., 2019). Instead, the findings support the idea that hope is derived from similar types of experiences that satisfy basic psychological needs, which remain important during every developmental stage (Lataster et al., 2022; Ryan & Deci, 2017).

The final objective involved investigating the relationships between specific sources of hope and levels of dispositional hope, perceived hope and well-being across four age groups. Amongst the emerging adulthood group, *socio-relational experiences* had the largest impact on overall levels of hope and well-being, followed by *personal mastery and hedonic experiences*. These findings are consistent with previous studies, thus reinforcing the idea that this developmental period is primarily focused on the search for belonging and personal identity (Arnett, 2014; Bernardo et al., 2018; Booker et al., 2021; Duncan et al., 2018). Contrariwise, *personal mastery and hedonic experiences* had the largest influence on all three variables in both the early and middle adulthood groups. This suggests that investing in self-fulfilling and self-gratifying experiences is important for individual levels of hope and well-being during a developmental period associated with multiple work- and family-related demands (Freund, 2020; Lachman, 2004). *Social-relational experiences* and *religious experiences* were also significant predictors of hope and well-being for both age groups, which concurs with Butkovic et al. (2020) and Margelisch (2018). Correlation statistics revealed that *personal mastery and hedonic experiences* and *socio-relational experiences* were positively associated with hope and well-being amongst the older adulthood group. These preliminary results validate the findings that social connectedness and maintaining a sense of competence during older adulthood is associated with enhanced levels of well-being and meaning in life

(Durmuş & Öztürk, 2022; Lin et al., 2022; Neubauer et al., 2015). However, in order to determine the predictive effects of these hope sources, it is essential to employ a larger sample.

6.3 Limitations of the Study

It is important to acknowledge that this study is limited by several factors, which may have an effect on the external validity of the findings. It is recommended that future researchers remain mindful of the limitations highlighted from this study and endeavour to address some of these challenges in future research.

First, due to the cross-sectional and correlational nature of the study design, causal relationships between the variables could not be inferred. Therefore, conclusions regarding changes in levels of hope and well-being over time or trends in sources of hope preferences across the lifespan could not be deduced. Hence, it is impossible to differentiate potential aging effects from cohort effects and other confounding psychosocial factors. To control for the influence of historical effects and acquire an enhanced understanding of the developmental changes in the dynamics of hope and well-being, it is recommended that a longitudinal research design be employed.

Second, convenience sampling and the disproportional reflection of demographic groups in the sample may be regarded as a limitation. For example, while 60.1% of the participants identified as white South Africans, recent estimates suggest that the white population group constitutes only 7.7% of the South African population (Galal, 2022). Moreover, in 2019, although 54.8% of the sample had tertiary education qualifications, only 7% of South African adults were in possession of such (OECD, 2019). Thus, the sample did not represent the demographics of South Africa. While the regression analyses controlled for variables such as population group, education level, health status and family status, it was not possible to partial out their effects in the other statistical analyses. This may limit the generalisation of the results

to the larger population. Hence, future studies may benefit from employing alternative sampling methods to ensure the inclusion of a more representative sample.

Third, it is noteworthy that the survey was a self-report questionnaire conducted in English. Participants, for whom English is not a first language, may have encountered difficulties with understanding certain items, which, in turn, may have affected the accuracy of their responses. Similarly, the digital format of the survey required all the participants to have access to the Internet and a certain level of Internet literacy and digital dexterity, which inherently limited the reach of participants. These two factors may have influenced response behaviour, thus affecting the internal validity of the data. To address these limitations, future researchers may consider administering pen-and-paper questionnaires in different South African languages.

Fourth, due to the small sample size of the older adulthood group, it was not possible to conduct multiple regression analyses with the data from this age group. Consequently, between-group comparisons were limited. Therefore, to evaluate the reliability and validity of the findings, it is imperative to replicate this study by employing more participants in each age group.

6.4 Contributions and Directions for Future Research

Despite the limitations, the present study has extended existing research on hope and well-being amongst different age groups in South Africa. It has also contributed to a greater knowledge of the experiences that strengthen people's hope during different developmental stages. Furthermore, the findings may have practical implications for the design of therapeutic interventions that aim to improve levels of hope and well-being.

Due to the lack of existing literature on this topic, there is a need to acquire an enhanced understanding of the dynamics and mechanisms underlying how individuals generate hope through specific sources. Krafft and Walker (2018b) emphasised that the meaning and

experience of hope is highly subjective. Consequently, it may be beneficial for future researchers to incorporate qualitative data collection methods to explore areas of research beyond what can be explained through closed-ended questions. For example, qualitative research affords researchers opportunities to explore the ways in which individuals perceive the origins of hope and value of different hope providers in specific situations.

Considering that the study employed data collected from 2019, prior to the outbreak of Covid-19 in South Africa, it may be valuable to compare potential differences in hope sources and levels of hope and well-being from the data collected during the pandemic. This could provide insight into the ways in which individuals sustain levels of hope during times of uncertainty and hardship.

6.5 Concluding Remarks

The present study investigated where and how South African adults find hope in their daily lives and how different hope sources impact levels of hope and well-being during different developmental stages. The study showed that individuals may source hope from multiple different experiences and relationships, but certain sources of hope were found to be stronger predictors of hope and well-being for different age groups. While this study cannot draw causal inferences, the findings suggest that certain experiences may be more likely than others to strengthen levels of hope and well-being during specific developmental phases. It is possible that other demographic and contextual factors may also influence hope sourcing behaviours and their impact on well-being outcomes. Maintaining and strengthening levels of hope may be of particular importance in the context of adversity, as it enables people to envision the possibility of a better future and thus improves adaptive coping behaviours (Amirav et al., 2021). Future research is needed in order to understand how hope may be sourced and strengthened during times of hardship.

The research process has been a hugely valuable experience, both in terms of expanding my research skills and from the perspective of personal growth. The study forced me to reflect on the role and meaning of hope in my own life and to become more mindful of the experiences that nourish my own levels of hope. In light of the recent social and economic challenges faced in South Africa, including the Covid-19 pandemic, political unrest, the electricity crisis and the repercussions from the war in Ukraine, this research has felt both relevant and poignant.

References

Acharya, T., & Agius, M. (2017). The importance of hope against other factors in the recovery of mental illness. *Psychiatria Danubina*, *29*, 619–622.

Alberts, C., & Bennett, M. J. (2017). Identity formation among isiXhosa-speaking adolescents in a rural Eastern Cape community in South Africa: A brief report. *Journal of Psychology in Africa*, *27*(2), 198–202. https://doi.org/10.1080/14330237.2017.1303128

American Psychiatric Association (Ed.). (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed). American Psychiatric Association.

Amirav, D. R., Besor, O., & Amirav, I. (2021). Hope During COVID-19 lockdown. *Cureus*, *13*(5). https://doi.org/10.7759/cureus.15097

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469. https://doi.org/DOI: 10.1037//0003-066X.55.5.469

Arnett, J. J. (2014). *Emerging adulthood: The winding road from the late teens through the twenties*. Oxford University Press.

Baeriswyl, M., & Oris, M. (2021). Social participation and life satisfaction among older adults: Diversity of practices and social inequality in Switzerland. *Ageing & Society*, 1–25. https://doi.org/10.1017/s0144686x21001057

Bai, K., Kohli, S., & Malik, A. (2017). Self-efficacy and hope as predictors of mental health. *Indian Journal of Positive Psychology*, *8*(4), 631–635. https://doi.org/doi:10.15614/ijpp/2017/v8i4/165901

Bailey, T. C., & Snyder, C. R. (2007). Satisfaction with Life and Hope: A Look at Age and Marital Status. *The Psychological Record*, *57*(2), 233–240. https://doi.org/10.1007/BF03395574

Bauer, J. M., Levin, V., Munoz Boudet, A. M., Nie, P., & Sousa-Poza, A. (2017). Subjective well-being across the lifespan in Europe and Central Asia. *Journal of Population Ageing*, *10*(2), 125–158. https://doi.org/10.1596/1813-9450-7378

Beck, A. T., Brown, G., & Steer, R. A. (1989). Prediction of eventual suicide in psychiatric inpatients by clinical ratings of hopelessness. *Journal of Consulting and Clinical Psychology*, *57*(2), 309.

Beck, A. T., & Steer, R. A. (1988). *BHS, Beck Hopelessness Scale: Manual*. Psychological Corporation. https://books.google.co.za/books?id=wFI_jwEACAAJ

Beng, T. S., Xin, C. A., Ying, Y. K., Khuen, L. P., Yee, A., Zainuddin, S. I., Chin, L. E., & Loong, L. C. (2020). Hope in palliative care: A thematic analysis. *Journal of Palliative Care*, 177–182. https://doi.org/10.1177/0825859720948976

Bernardo, A. B. (2010). Extending hope theory: Internal and external locus of trait hope. *Personality and Individual Differences*, *49*(8), 944–949. https://doi.org/10.1016/j.paid.2010.07.036

Bernardo, A. B., & Nalipay, M. J. N. (2016). Social axioms as social foundations of locus-of-hope: A study in three Asian cultural groups. *Personality and Individual Differences*, *95*, 110–113. https://doi.org/10.1016/j.paid.2016.02.046

Bernardo, A. B., Yeung, S. S., Resurreccion, K. F., Resurreccion, R. R., & Khan, A. (2018). External locus-of-hope, well-being, and coping of students: A cross-cultural examination within Asia. *Psychology in the Schools*, *55*(8), 908–923. https://doi.org/10.1002/pits.22155

Blanchflower, D. G., & Oswald, A. J. (2008). Is well-being U-shaped over the life cycle? *Social Science & Medicine*, *66*(8), 1733–1749. https://doi.org/10.3386/w12935

Booker, J. A., Dunsmore, J. C., & Fivush, R. (2021). Adjustment factors of attachment, hope, and motivation in emerging adult well-being. *Journal of Happiness Studies*, *22*(7), 3259–3284. https://doi.org/10.1007/s10902-021-00366-5

Boyce, G., & Harris, G. (2013). Hope the beloved country: Hope levels in the new South Africa. *Social Indicators Research*, *113*(1), 583–597. https://doi.org/10.1007/s11205-012-0112-y

Bronk, K. C., Hill, P. L., Lapsley, D. K., Talib, T. L., & Finch, H. (2009). Purpose, hope, and life satisfaction in three age groups. *The Journal of Positive Psychology*, *4*(6), 500–510. https://doi.org/10.1080/17439760903271439

Brophy, S. (2019, October 1). SA proves why its 'more optimistic than most other countries'. *News 24*. https://www.news24.com/news24/travel/sa-proves-why-its-more-optimistic-than-most-other-countries-20191001-2

Brown, G. K., Beck, A. T., Steer, R. A., & Grisham, J. R. (2000). Risk factors for suicide in psychiatric outpatients: A 20-year prospective study. *Journal of Consulting and Clinical Psychology*, *68*(3), 371. https://doi.org/10.1037/0022-006x.68.3.371

Butkovic, A., Tomas, J., Spanic, A. M., Vukasovic Hlupic, T., & Bratko, D. (2020). Emerging adults versus middle-aged adults: Do they differ in psychological needs, self-esteem and life satisfaction. *Journal of Happiness Studies*, *21*(3), 779–798. https://doi.org/10.1007/s10902-019-00106-w

Cheavens, J., & Gum, A. (2000). Gray power: Hope for the ages. In C. R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications.* (pp. 201–221). Academic Press. https://doi.org/10.1016/B978-012654050-5/50003-8

Chen, F. F., Jing, Y., Hayes, A., & Lee, J. M. (2013). Two concepts or two approaches? A bifactor analysis of psychological and subjective well-being. *Journal of Happiness Studies*, *14*(3), 1033–1068. https://doi.org/10.1037/e578192014-355

Cherrington, A. M. (2018). A framework of Afrocentric hope: Rural South African children's conceptualizations of hope. *Journal of Community Psychology*, *46*(4), 502–514. https://doi.org/10.1002/jcop.21956

Child, D. (2006). *The essentials of factor analysis* (3rd edition). Continuum International Publishing Group.

Chopik, W. J., Bremner, R. H., Johnson, D. J., & Giasson, H. L. (2018). Age differences in age perceptions and developmental transitions. *Frontiers in Psychology*, *9*. https://doi.org/10.3389/fpsyg.2018.00067

Ciarrochi, J., Parker, P., Kashdan, T. B., Heaven, P. C., & Barkus, E. (2015). Hope and emotional well-being: A six-year study to distinguish antecedents, correlates, and consequences. *The Journal of Positive Psychology*, *10*(6), 520–532. https://doi.org/10.1080/17439760.2015.1015154

Corrigan, P. W. (2014). Can there be false hope in recovery? *The British Journal of Psychiatry*, *205*(6), 423–424. https://doi.org/10.1192/bjp.bp.114.151704

Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*, *10*(1), 7. https://doi.org/10.4135/9781412995627.d8

Cozby, P. C., & Bates, S. (2018). *Methods in behavioral research* (13th ed.). McGraw-Hill Education.

Dargan, S., Macdonald, K. B., & Schermer, J. A. (2021). Exploring locus-of-hope: Relational tendencies, self-esteem, attachment, and gender. *Behavioral Sciences*, *11*(9). https://doi.org/10.3390/bs11090120

Daugherty, D. A., Runyan, J. D., Steenbergh, T. A., Fratzke, B. J., Fry, B. N., & Westra, E. (2018). Smartphone delivery of a hope intervention: Another way to flourish. *PLoS ONE*, *13*(6). https://doi.org/10.1371/journal.pone.0197930

Daviaud, E., Kelly, G., Cornell, J., Geffen, L., & Solanki, G. (2019). Population ageing in South Africa: Trends, impact, and challenges for the health sector. *South African Health Review*, *2019*(1), 175–182. https://doi.org/10.2307/j.ctt9qgsfc.13

de Bruin, G. P., & du Plessis, G. A. (2015). Bifactor analysis of the Mental Health Continuum—Short Form (MHC—SF). *Psychological Reports*, *116*(2), 438–446. https://doi.org/10.2466/03.02.PR0.116k20w6

Dezutter, J., Waterman, A. S., Schwartz, S. J., Luyckx, K., Beyers, W., Meca, A., Kim, S. Y., Whitbourne, S. K., Zamboanga, B. L., Lee, R. M., Hardy, S. A., Forthun, L. F., Ritchie, R. A., Weisskirch, R. S., Brown, E. J., & Caraway, S. J. (2014). Meaning in life in emerging adulthood: A Person-oriented approach. *Journal of Personality*, *82*(1), 57–68. https://doi.org/10.1111/jopy.12033

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*, 542–575. https://doi.org/10.1037/0033-2909.95.3.542

Diener, E. (1999). Personality and subjective well-being: The foundations of hedonic psychology. In D. Kahneman, N. Schwarz, & E. Diener (Eds.), *Well-being: Foundations of hedonic psychology* (pp. 213–229). Russell Sage Foundation.

Donaldson, S. I., Dollwet, M., & Rao, M. A. (2015). Happiness, excellence, and optimal human functioning revisited: Examining the peer-reviewed literature linked to positive psychology. *The Journal of Positive Psychology*, *10*(3), 185–195. https://doi.org/10.1080/17439760.2014.943801

Du, H., & King, R. B. (2013). Placing hope in self and others: Exploring the relationships among self-construals, locus of hope, and adjustment. *Personality and Individual Differences*, *54*(3), 332–337. https://doi.org/10.1016/j.paid.2012.09.015

Dufault, K., & Martocchio, B. C. (1985). Symposium on compassionate care and the dying experience. Hope: Its spheres and dimensions. *The Nursing Clinics of North America*, *20*(2), 379–391.

Duggleby, W., Hicks, D., Nekolaichuk, C., Holtslander, L., Williams, A., Chambers, T., & Eby, J. (2012). Hope, older adults, and chronic illness: A metasynthesis of qualitative research. *Journal of Advanced Nursing*, *68*(6), 1211–1223. https://doi.org/10.1111/j.1365-2648.2011.05919.x

Duncan, J. M., Withers, M. C., Lucier-Greer, M., Ferraro, A. J., & Reed-Fitzke, K. (2018). Research note: Social leisure engagement, peer support, and depressive symptomology among emerging adults. In *Leisure Studies* (Vol. 37, Issue 3, pp. 343–351). https://doi.org/10.1080/02614367.2017.1411968

Durmuş, M., & Öztürk, Z. (2022). The effect of covid-19 outbreak on older adults' hopelessness, loneliness and spiritual well-being in turkey. *Journal of Religion and Health*, *61*(1), 851–865. https://doi.org/10.1007/s10943-021-01494-1

Dwivedi, A., & Rastogi, R. (2016). Future time perspective, hope and life satisfaction: A study on emerging adulthood. *Jindal Journal of Business Research*, *5*(1), 17–25. https://doi.org/10.1177/2278682116673790

Edwards, L. M., & McClintock, J. B. (2013). Promoting hope among youth: Theory, research, and practice. In C. Proctor & P. A. Linley (Eds.), *Research, applications, and interventions for children and adolescents: A Positive Psychology Perspectiv* (pp. 43–55). Springer.

Eraslan-Capan, B. (2016). Social Connectedness and Flourishing: The mediating role of hopelessness. *Universal Journal of Educational Research*, *4*(5), 933–940. https://doi.org/10.13189/ujer.2016.040501

Erikson, E. H. (1968). *Identity: Youth and crisis*. Norton & Company.

Erikson, E. H., & Erikson, J.M. (1998). *The life cycle completed (extended version)*. Norton & Company.

Eriksson, P. L., Wängqvist, M., Carlsson, J., & Frisén, A. (2020). Identity development in early adulthood. *Developmental Psychology*, *56*(10), 1968–1983.. https://doi.org/10.1037/dev0001093

Field, A. P. (2009). *Discovering statistics using SPSS* (3rd ed). SAGE Publications.

Field, A. P. (2017). *Discovering statistics using IBM SPSS statistics* (5th ed). SAGE Publications.

Frankl, V. E. (1992). *Man's search for meaning: An Introduction to Logotherapy* (4th ed.). Beacon Press.

Freund, A. M. (2020). The bucket list effect: Why leisure goals are often deferred until retirement. *American Psychologist*, *75*(4), 499–510. https://doi.org/10.1037/amp0000617

Gaeeni, M., Farahani, M. A., Mohammadi, N., & Seyedfatemi, N. (2014). Sources of hope: Perception of Iranian family members of patients in the intensive care unit. *Iranian Journal of Nursing and Midwifery Research*, *19*(6), 635–642. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4280729/pdf/IJNMR-19-635.pdf

Galal, S. (2022, September 7). *Total population of South Africa 2022, by ethnic groups*. Statista. https://www.statista.com/statistics/1116076/total-population-of-south-africa-by-population-group/

Gallagher, M. W., Marques, S. C., & Lopez, S. J. (2017). Hope and the academic trajectory of college students. *Journal of Happiness Studies*, *18*(2), 341–352. https://doi.org/10.1007/s10902-016-9727-z

Garcia, J. A. S., & Sison, K. G. (2013). Locus of hope and subjective well-being. *International Journal of Research Studies in Psychology*, *1*(3). https://doi.org/10.5861/ijrsp.2012.297

Garrard, E., & Wrigley, A. (2009). Hope and terminal illness: False hope versus absolute hope. *Clinical Ethics*, *4*(1), 38–43. https://doi.org/10.1258/ce.2008.008050

Geffen, L. N., Kelly, G., Morris, J. N., & Howard, E. P. (2019). Peer-to-peer support model to improve quality of life among highly vulnerable, low-income older adults in Cape Town, South Africa. *BMC Geriatrics*, *19*(1), 1–12. https://doi.org/10.1186/s12877-019-1310-0

Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate Behavioral Research*, *26*(3), 499–510. https://doi.org/10.1207/s15327906mbr2603_7

Guse, T., & Shaw, M. (2018). Hope, meaning in life and well-being among a group of young adults. In A. M. Krafft, P. Perrig-Chiello, & A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 63–77). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Guse, T., & Vermaak, Y. (2011). Hope, psychosocial well-being and socioeconomic status among a group of South African adolescents. *Journal of Psychology in Africa*, *21*(4), 527–533. https://doi.org/10.1080/14330237.2011.10820493

Guse, T., Vescovelli, F., & Croxford, S.-A. (2019). Subjective well-being and gratitude among South African adolescents: Exploring gender and cultural differences. *Youth & Society*, *51*(5), 591–615. https://doi.org/10.1177/0044118X17697237

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis* (7th ed.). Pearson.

Havighurst, R. J. (1972). *Developmental tasks and education*. D. McKay Company. https://books.google.co.za/books?id=FCpqAAAAMAAJ

Hellman, C. M., & Gwinn, C. (2017). Camp HOPE as an intervention for children exposed to domestic violence: A program evaluation of hope, and strength of character. *Child and Adolescent Social Work Journal*, *34*(3), 269–276. https://doi.org/10.1007/s10560-016-0460-6

Henning, G., Bjälkebring, P., Stenling, A., Thorvaldsson, V., Johansson, B., & Lindwall, M. (2019). Changes in within-and between-person associations between basic psychological need satisfaction and well-being after retirement. *Journal of Research in Personality*, *79*, 151–160. https://doi.org/10.1016/j.jrp.2019.03.008

Hernandez, S. C., & Overholser, J. C. (2021). A systematic review of interventions for hope/hopelessness in older adults. *Clinical Gerontologist*, *44*(2), 97–111. https://doi.org/10.1080/07317115.2019.1711281

Hides, L., Quinn, C., Stoyanov, S., Cockshaw, W., Kavanagh, D. J., Shochet, I., Deane, F., Kelly, P., & Keyes, C. L. M. (2020). Testing the interrelationship between mental well-being and mental distress in young people. *The Journal of Positive Psychology*, *15*(3), 314–324. https://doi.org/10.1080/17439760.2019.1610478

Hillbrand, M., & Young, J. L. (2008). Instilling hope into forensic treatment: The antidote to despair and desperation. *Journal of the American Academy of Psychiatry and the Law Online*, *36*(1), 90–94.

Hirsch, J. K., Sirois, F. M., & Lyness, J. M. (2011). Functional impairment and depressive symptoms in older adults: Mitigating effects of hope: Functional impairment, depressive symptoms, and hope. *British Journal of Health Psychology*, *16*(4), 744–760. https://doi.org/10.1111/j.2044-8287.2010.02012.x

Hitchcott, P. K., Penna, M. P., & Fastame, M. C. (2020). Age trends in well-being and depressive symptoms: The role of social desirability. *Psychiatric Quarterly*. https://doi.org/10.1007/s11126-020-09711-y

Hobbs, M., & Baker, M. (2012). Hope for recovery: How clinicians may facilitate this in their work. *Journal of Mental Health*, *21*(2), 144–153. https://doi.org/10.3109/09638237.2011.648345

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). SAGE Publications.

Hollifield, C. R., & Conger, K. J. (2015). The role of siblings and psychological needs in predicting life satisfaction during emerging adulthood. *Emerging Adulthood*, *3*(3), 143–153. https://doi.org/10.1177/2167696814561544

Hudson, N. W., Lucas, R. E., & Donnellan, M. B. (2019). *The development of subjective well-being across the lifespan.* In D.P. McAdams, R. L. Shiner, & J.L. Tackett (Eds.), *Handbook of personality development* (pp. 503-517). The Guilford Press. https://doi.org/The journal of the American Academy of Psychiatry and the Law

Huen, J. M. Y., Ip, B. Y. T., Ho, S. M. Y., & Yip, P. S. F. (2015). Hope and hopelessness: The role of hope in buffering the impact of hopelessness on suicidal ideation. *PLOS ONE*, *10*(6), e0130073. https://doi.org/10.1371/journal.pone.0130073

Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*, *15*(6), 1425–1456. https://doi.org/10.1007/s10902-013-9485-0

Ivtzan, I., Lomas, T., Hefferon, K., & Worth, P. (2015). Positive development – our journey of growth. In Ivtzan, I., Lomas, T., Hefferon, K., & Worth, P (Eds.), *Second wave positive psychology: Embracing the dark side of life*. (pp. 55-75). Routledge.

Joshanloo, M. (2016). Revisiting the empirical distinction between hedonic and eudaimonic aspects of well-being using exploratory structural equation modeling. *Journal of Happiness Studies*, *17*(5), 2023–2036. https://doi.org/10.1007/s10902-015-9683-z

Kagee, A. (2014). South African psychology after 20 years of democracy: Criticality, social development, and relevance. *South African Journal of Psychology*, *44*(3), 350–363. https://doi.org/10.1177/0081246314534147

Karayigit, C., & Wood, J. (2021). Where emerging adults in the united states find meaning in life. *Adultspan Journal*, *20*(1), 47–60. https://doi.org/10.1002/adsp.12105

Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *The Journal of Positive Psychology*, *3*(4), 219–233. https://doi.org/10.1080/17439760802303044

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, *61*(2), 121–140. https://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 Behavior*, 207–222. https://doi.org/10.2307/3090197

Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology*, *73*(3), 539–548. https://doi.org/10.1037/0022-006X.73.3.539

Keyes, C. L. M. (2009). *Brief description of the Mental Health Continuum Short Form (MHC-SF)*. http://www.sociology.emory.edu/ckeyes/

Keyes, C. L. M. (2013). Promoting and protecting positive mental health: early and often throughout the lifespan. In C. L. M. Keyes (Ed.), *Mental well-being: International contributions to the study of positive mental health* (pp. 3–28). Springer.

Keyes, C. L. M., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, *4*(3), 197–201. https://doi.org/10.1080/17439760902844228

Keyes, C. L. M., & Lopez, S. J. (2002). Towards a science of mental health. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 45-62). Oxford University Press.

Keyes, C. L. M., Wissing, M., Potgieter, J. P., Temane, M., Kruger, A., & van Rooy, S. (2008). Evaluation of the mental health continuum–short form (MHC–SF) in setswana-speaking South Africans. *Clinical Psychology & Psychotherapy*, *15*(3), 181–192. https://doi.org/10.1002/cpp.572

Khumalo, I. P., & Guse, T. (2022). Factor structure of the Dispositional Hope Scale amongst South Africans: An exploratory structural equation modelling study. *African Journal of Psychological Assessment*, *4*, 9. https://doi.org/10.4102/ajopa.v4i0.66

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. https://doi.org/10.1007/s11205-010-9777-2

Kirby, K., Sweeney, S., Armour, C., Goetzke, K., Dunne, M., Davidson, M., & Belfer, M. (2021). Developing hopeful minds: Can teaching hope improve well-being and protective factors in children? *Child Care in Practice.*, 1–18. https://doi.org/10.1080/13575279.2021.1924121

Kivlighan, D. M., Abbas, M., Gloria, A. M., Aguinaga, A., Frank, C., & Frost, N. D. (2018). Are belongingness and hope essential features of academic enhancement groups? A psychosociocultural perspective. *Journal of Counseling Psychology*, *65*(2), 204–213. MEDLINE. https://doi.org/10.1037/cou0000266

Klein, N. (2017). Prosocial behavior increases perceptions of meaning in life. *The Journal of Positive Psychology*, *12*(4), 354–361. https://doi.org/10.1080/17439760.2016.1209541

Koenig, H. G. (2020). Ways of protecting religious older adults from the consequences of COVID-19. *The American Journal of Geriatric Psychiatry*, *28*(7), 776–779. https://doi.org/10.1016/j.jagp.2020.04.004

Kopylova, N., Greyling, T., & Rossouw, S. (2022). Multidimensional quality of life of older adults in South Africa. *Applied Research in Quality of Life*, 1–24. https://doi.org/10.1007/s11482-022-10072-w

Kotzé, E., Hulme, T., Geldenhuys, T., & Weingarten, K. (2013). In the wake of violence: Enacting and witnessing hope among people. *Family Process*, *52*(3), 355–367. https://doi.org/10.1111/famp.12010

Krafft, A. M., & Choubisa, R. (2018). Hope in the Indian psychology context: Philosophical foundations and empirical findings. In A. M. Krafft, P. Perrig-Chiello, & A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 131–164). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Krafft, A. M., Guse, T., & Maree, D. (2021). Distinguishing perceived hope and dispositional optimism: Theoretical foundations and empirical findings beyond future expectancies and cognition. *Journal of Well-Being Assessment*, *4*(3), 217–243. https://doi-org.uplib.idm.oclc.org/10.1007/s41543-020-00030-4

Krafft, A. M., Martin-Krumm, C., & Fenouillet, F. (2019). Adaptation, further elaboration, and validation of a scale to measure hope as perceived by people: Discriminant value and predictive utility vis-à-vis dispositional hope. *Assessment*, *26*(8), 1594–1609. https://doi.org/10.1177/1073191117700724

Krafft, A. M., Perrig-Chiello, P., & Walker, A. M. (Eds.). (2018). *Hope for a good life* (Vol. 72). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Krafft, A. M., & Walker, A. M. (2018a). Exploring the concept and experience of hope – Empirical findings and the virtuous circle of hope. In A. M. Krafft, P. Perrig-Chiello,

& A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 21–60). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Krafft, A. M., & Walker, A. M. (2018b). Exploring the concept and experience of hope—Theoretical and methodological foundations. In A. M. Krafft, P. Perrig-Chiello, & A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 2–20). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Lachman, M. E. (2002). *Handbook of midlife development*. John Wiley & Sons.

Lachman, M. E. (2004). Development in midlife. *Annual Review of Psychology.*, *55*(1). https://doi.org/10.1146/annurev.psych.55.090902.141521

Lataster, J., Reijnders, J., Janssens, M., Simons, M., Peeters, S., & Jacobs, N. (2022). Basic psychological need satisfaction and well-being across age: A cross-sectional general population study among 1709 Dutch speaking adults. *Journal of Happiness Studies*, 1–32. https://doi.org/10.1007/s10902-021-00482-2

Leontopoulou, S. (2015). A positive psychology intervention with emerging adults. *The European Journal of Counselling Psychology*, *3*(2), 113–136. https://doi.org/10.5964/ejcop.v3i2.33

Lin, Y., Zhang, B., & Xu, R. (2022). Sense of coherence can predict hope in older adults: A cross-lagged analysis. *Aging and Mental Health*, *26*(2), 376–383. https://doi.org/10.1080/13607863.2021.1872488

Long, K. N. G., Kim, E. S., Chen, Y., Wilson, M. F., Worthington Jr, E. L., & VanderWeele, T. J. (2020). The role of hope in subsequent health and well-being for older adults: An outcome-wide longitudinal approach. *Global Epidemiology*, *2*. https://doi.org/10.1016/j.gloepi.2020.100018

Lopez, S. J., Snyder, C. R., Magyar-Moe, J. L., Edwards, L. M., Pedrotti, J. T., Janowski, K., Turner, J. L., & Pressgrove, C. (2004). *Strategies for accentuating hope.* In P. A.

Linley, S. Joseph, & M. E. P. Seligman (Eds.), *Positive psychology in practice* (pp. 388–404). John Wiley & Sons.

Lowell, E. P., Tonnsen, B. L., Bailey, D. B., & Roberts, J. E. (2017). The effects of optimism, religion, and hope on mood and anxiety disorders in women with the *FMR1* premutation: Protective factors in *FMR1* premutation. *Journal of Intellectual Disability Research*, *61*(10), 916–927. https://doi.org/10.1111/jir.12409

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*(1), 84. https://doi.org/10.1037/1082-989x.4.1.84

Mahlo, L., & Windsor, T. D. (2020). Older and more mindful? Age differences in mindfulness components and well-being. *Aging & Mental Health*, 1–12. https://doi.org/10.1080/13607863.2020.1734915

Marciano, H., Eshel, Y., Kimhi, S., & Adini, B. (2022). Hope and fear of threats as predictors of coping with two major adversities, the COVID-19 pandemic and an armed conflict. *International Journal of Environmental Research and Public Health*, *19*(3), 1123. https://doi.org/10.3390/ijerph19031123

Margelisch, K. (2018). The association between spirituality/ religiosity and well-being in young, middle and old age in Switzerland. In A. M. Krafft, P. Perrig-Chiello, & A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 109–128). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Marques, S. C., & Gallagher, M. W. (2017). Age differences and short-term stability in hope: Results from a sample aged 15 to 80. *Journal of Applied Developmental Psychology*, *53*, 120–126. https://doi.org/10.1016/j.appdev.2017.10.002

McMahan, E. A., & Estes, D. (2010). Hedonic versus eudaimonic conceptions of well-being: Evidence of differential associations with self-reported well-being. *Social Indicators Research*, *103*(1), 93–108. https://doi.org/10.1007/s11205-010-9698-0

Mitchell, L. L., Lodi-Smith, J., Baranski, E. N., & Whitbourne, S. K. (2021). Implications of identity resolution in emerging adulthood for intimacy, generativity, and integrity across the adult lifespan. *Psychology and Aging*, *36*(5), 545–556. https://doi.org/10.1037/pag0000537

Mongrain, M., & Anselmo-Matthews, T. (2012). Do positive psychology exercises work? A replication of Seligman et al.(). *Journal of Clinical Psychology*, *68*(4). https://doi.org/10.1002/jclp.21839

Moran, G. S., & Nemec, P. B. (2013). Walking on the sunny side: What positive psychology can contribute to psychiatric rehabilitation concepts and practice. *Psychiatric Rehabilitation Journal*, *36*(3), 202–208. https://doi.org/10.1037/prj0000012

Munoz, R. T., Hanks, H., & Hellman, C. M. (2019). Hope and resilience as distinct contributors to psychological flourishing among childhood trauma survivors. *Traumatology*. https://doi.org/10.1037/trm0000224

Munoz, R. T., Quinton, K. A., Worley, J. A., & Hellman, C. M. (2019). Locus of hope: External hope in parents/guardians as an antecedent of adolescents' internal hope and life satisfaction. *Child Indicators Research*, *12*(3), 1107–1124.

Nell, W. (2014). Sources of life meaning among South African university students. *Journal of Psychology in Africa*, *24*(1), 82–91. https://doi.org/10.1080/14330237.2014.904087

Neubauer, A. B., Schilling, O. K., & Wahl, H.-W. (2015). What do we need at the end of life? Competence, but not autonomy, predicts intraindividual fluctuations in subjective well-being in very old age. *The Journals of Gerontology: Series B*, *72*(3), 425–435. https://doi.org/10.1093/geronb/gbv052

Nicholls, D., Fogarty, S., Hay, P., & Ramjan, L. M. (2016). Participatory action research for women with anorexia nervosa. *Nurse Researcher*, *23*(5). https://doi.org/10.7748/nr.23.5.26.s6

Niebieszczanski, R. J., Dent, H., & McGowan, A. (2016). 'Your personality is the intervention': A grounded theory of mental health nurses' beliefs about hope and experiences of fostering hope within a secure setting. *The Journal of Forensic Psychiatry & Psychology*, *27*(3), 419–442. https://doi.org/10.1080/14789949.2015.1134626

OECD. (2019). *Education at a glance 2019*. OECD Publishing. https://doi.org/10.1787/f8d7880d-en

O'Hara, D. (2013). *Hope in counselling and psychotherapy*. Sage Publications. https://doi.org/10.4135/9781446269992

Ojala, M. (2012). Hope and climate change: The importance of hope for environmental engagement among young people. *Environmental Education Research*, *18*(5), 625–642. https://doi.org/10.1080/13504622.2011.637157

Park, J., & Chen, R. K. (2016). Positive psychology and hope as means to recovery from mental illness. *Journal of Applied Rehabilitation Counseling*, *47*(2), 34–42. https://doi.org/10.1891/0047-2220.47.2.34

Perrig-Chiello, P., Spahni, S., & Margelisch, K. (2018). The older, the better? The role of hope for the regulation of subjective well-being over life-span. In A. M. Krafft, P. Perrig-Chiello, & A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 79–94). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Pituch, K. A., & Stevens, J. P. (2015). *Applied multivariate statistics for the social sciences: Analyses with SAS and IBM's SPSS* (6th ed.). Routledge.

Pleeging, E., Burger, M., & van Exel, J. (2021). The relations between hope and subjective well-being: A literature overview and empirical analysis. *Applied Research in Quality of Life*, *16*(3), 1019–1041. https://doi.org/10.1007/s11482-019-09802-4

Reed-Fitzke, K., & Lucier-Greer, M. (2021). Basic psychological need satisfaction and frustration: Profiles Among emerging adult college students and links to well-being. *Contemporary Family Therapy,* 43, (1), 20–34). https://doi.org/10.1007/s10591-020-09550-w

Robinson, O. (2015). Emerging adulthood, early adulthood, and quarter-life crisis. In R. Žukauskienė (Ed.), *Emerging adulthood in a European context* (pp. 17–30). Routledge.

Robinson, O. (2020). *Development through adulthood*. Red Globe Press.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

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*(6), 1069. https://doi.org/10.1037/0022-3514.57.6.1069

Sabanciogullari, S., & Yilmaz, F. T. (2021). The effect of religious coping on hope level of cancer patients receiving chemotherapy. *Journal of Religion and Health*, *60*(4), 2756–2769. https://doi.org/10.1007/s10943-019-00944-1

Scioli, A., Scioli-Salter, E. R., Sykes, K., Anderson, C., & Fedele, M. (2016). The positive contributions of hope to maintaining and restoring health: An integrative, mixed-method approach. *The Journal of Positive Psychology*, *11*(2), 135–148. https://doi.org/10.1080/17439760.2015.1037858

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–9). Oxford University Press.

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, *60*(5), 410. https://doi.org/10.1037/0003-066x.60.5.410

Slezáčková, A. (2017). *Hope and well-being. Psychosocial correlates and benefits of hope*.

Slezáčková, A., Cefai, C., & Prošek, T. (2018). Psychosocial correlates and predictors of perceived hope across cultures: A study of Czech and Maltese contexts. In A. M. Krafft, P. Perrig-Chiello, & A. M. Walker (Eds.), *Hope for a good life* (Vol. 72, pp. 165–198). Springer International Publishing. https://doi.org/10.1007/978-3-319-78470-0

Slezáčková, A., Guse, T., & Prošek, T. (2021). The role of perceived hope in harmony in life among Czech and South African adults. In R. K. Pradhan & U. Kumar (Eds.), *emotion, well-being, and resilience: Theoretical perspectives and practical applications*. (pp. 77-94). Apple Academic Press.

Slezáčková, A., & Krafft, A. (2016). Hope – A driving force of optimal human development. In J. Mohan & M. Sehgal (Eds.), *Idea of excellence: Multiple perspectives* (pp. 1–12).

Snyder, C. R. (2000a). Genesis: The birth and growth of hope. In C. R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications.* (pp. 25–38). Academic Press. https://doi.org/10.1016/B978-012654050-5/50003-8

Snyder, C. R. (2000b). Hypothesis: There is hope. In C. R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications.* (pp. 3–21). Academic Press. https://doi.org/10.1016/B978-012654050-5/50003-8

Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*(4), 249–275. https://doi.org/10.1207/S15327965PLI1304_01

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of*

Personality and Social Psychology, *60*(4), 570–585. https://doi.org/10.1037/0022-3514.60.4.570

Stone, A. A., Schwartz, J. E., Broderick, J. E., & Deaton, A. (2010). A snapshot of the age distribution of psychological well-being in the United States. *Proceedings of the National Academy of Sciences*, *107*(22), 9985–9990. https://doi.org/10.1073/pnas.1003744107

Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics* (6th ed.). Pearson.

Tannenbaum, M. B., Hepler, J., Zimmerman, R. S., Saul, L., Jacobs, S., Wilson, K., & Albarracín, D. (2015). Appealing to fear: A meta-analysis of fear appeal effectiveness and theories. *Psychological Bulletin*, *141*(6), 1178. https://doi.org/10.1037/a0039729

Taylor, C. (2012). Rethinking hopelessness and the role of spiritual care when cure is no longer an option. *Journal of Pain and Symptom Management*, *44*(4), 626–630. https://doi.org/10.1016/j.jpainsymman.2012.07.010

Tomaz, S. A., Coffee, P., Ryde, G. C., Swales, B., Neely, K. C., Connelly, J., Kirkland, A., McCabe, L., Watchman, K., & Andreis, F. (2021). Loneliness, wellbeing, and social activity in scottish older adults resulting from social distancing during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *18*(9), 4517. https://doi.org/10.3390/ijerph18094517

Tong, E. M. W., Fredrickson, B. L., Chang, W., & Lim, Z. X. (2010). Re-examining hope: The roles of agency thinking and pathways thinking. *Cognition & Emotion*, *24*(7), 1207–1215. https://doi.org/10.1080/02699930903138865

Tredoux, C., & Durrheim, K. (2019). *Numbers, hypothesis & conclusions: A course in statistics for the social sciences* (3rd ed.). Juta and Company.

Valle, M. F., Huebner, E. S., & Suldo, S. M. (2006). An analysis of hope as a psychological strength. *Journal of School Psychology*, *44*(5), 393–406. https://doi.org/10.1016/j.jsp.2006.03.005

Van Boven, L. (2005). Experientialism, materialism, and the pursuit of happiness. *Review of General Psychology*, *9*(2), 132–142. https://doi.org/10.1037/1089-2680.9.2.132

Venning, A., Eliott, J., Kettler, L., & Wilson, A. (2013). Complete mental health in South Australian youth: Prevalence, measurement, and promotion. In C. L. M. Keyes (Ed.), *Mental well-being: International contributions to the study of positive mental health* (Vol. 8, pp. 29–50). Springer.

Visser, M., & Law-van Wyk, E. (2021). University students' mental health and emotional wellbeing during the COVID-19 pandemic and ensuing lockdown. *South African Journal of Psychology*, *51*(2), 229–243. https://doi.org/10.1177/00812463211012219

Wagshul, Y. D. (2019). Effect of external locus-of-hope on acquired capability for suicide. *Suicide and Life-Threatening Behavior*, *49*(6), 1541–1551. https://doi.org/10.1111/sltb.12539

Weingarten, K. (2010). Reasonable hope: Construct, clinical applications, and supports. *Family Process*, *49*(1), 5–25. https://doi.org/10.1111/j.1545-5300.2010.01305.x

WHO. (2015). *World report on ageing and health*. World Health Organization.

Wiles, R., Cott, C., & Gibson, B. E. (2008). Hope, expectations and recovery from illness: A narrative synthesis of qualitative research. *Journal of Advanced Nursing*, *64*(6), 564–573. https://doi.org/10.1111/j.1365-2648.2008.04815.x

Wilson, A., Wissing, M. P., Ndima, L., & Somhlaba, N. Z. (2021). Representations of hope, goals, and meaning from lay person's perspectives in two African contexts. *Journal of Humanistic Psychology*, *61*(4), 493–515. https://doi.org/10.1177/0022167818785070

Wissing, M. P., Schutte, L., Liversage, C., Entwisle, B., Gericke, M., & Keyes, C. (2021). Important goals, meanings, and relationships in flourishing and languishing states: Towards patterns of well-being. *Applied Research in Quality of Life*, *16*(2), 573–609. https://doi.org/10.1007/s11482-019-09771-8

Wissing, M. P., & Temane, Q. M. (2013). Feeling good, functioning well, and being true: Reflections on selected findings from the FORT research programme. In Wissing, M. P. (Ed.), *Well-being research in South Africa* (pp. 225–250). Springer.

Wissing, M. P., Wilson Fadiji, A., Schutte, L., Chigeza, S., Schutte, W. D., & Temane, Q. M. (2020). Motivations for relationships as sources of meaning: Ghanaian and South African experiences. *Frontiers in Psychology*, *11*, 2019. https://doi.org/10.3389/fpsyg.2020.02019

Wnuk, M. (2022). Beneficial effects of spiritual experiences and existential aspects of life satisfaction of breast and lung cancer patients in Poland: A pilot study. *Journal of Religion and Health*, 1–17. https://doi.org/10.1007/s10943-022-01601-w

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. https://doi.org/10.1037/a0022511

Xavier Gómez-Olivé, F., Thorogood, M., Clark, B. D., Kahn, K., & Tollman, S. M. (2010). Assessing health and well-being among older people in rural South Africa. *Global Health Action*, *3*(1), 2126. https://doi.org/10.3402/gha.v3i0.2126

Yalçın, İ., & Malkoç, A. (2015). The relationship between meaning in life and subjective well-being: Forgiveness and hope as mediators. *Journal of Happiness Studies*, *16*(4), 915–929. https://doi.org/10.1007/s10902-014-9540-5

Yalom, I. D., & Leszcz, M. (2008). *The theory and practice of group psychotherapy*. Basic Books. https://books.google.co.za/books?id=mBq2l4oNMI8C

Yaya, S., Idriss-Wheeler, D., Vezina, M., & Bishwajit, G. (2020). Self-reported activities of daily living, health and quality of life among older adults in South Africa and Uganda: A cross sectional study. *BMC Geriatrics*, *20*(1), 1–11. https://doi.org/10.1186/s12877-020-01809-z

Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, *9*(2), 79–94. https://doi.org/10.20982/tqmp.09.2.p079

Yotsidi, V., Pagoulatou, A., Kyriazos, T., & Stalikas, A. (2018). The role of hope in academic and work environments: An integrative literature review. *Psychology*, *9*(03), 385.

Yucens, B., Ozan Kotan, V., Ozkayar, N., Kotan, Z., Yuksel, R., Bayram, S., Dede, F., & Goka, E. (2019). The association between hope, anxiety, depression, coping strategies and perceived social support in patients with chronic kidney disease. *Dusunen Adam*, *32*(1), 43–51. https://doi.org/10.14744/DAJPNS.2019.00006

Appendix A:

Ethical Clearance for the International Hope Barometer Survey 2019

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Humanities 100.
1919 - 2019
Research Ethics Committee

21 October 2019

Dear Prof C Guse

Project Title:	International Hope Barometer Survey 2019 -2022
Researcher:	Prof C Guse
Supervisor:	
Department:	Psychology
Reference number:	04444583 (HUM006/0819)
Degree:	Staff Research / Non Degree

I have pleasure in informing you that the above application was **approved** by the Research Ethics Committee on 21 October 2019. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely

Prof Maxi Schoeman
Deputy Dean: Postgraduate and Research Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: PGHumanities@up.ac.za

Appendix B:

Ethical Clearance for Present Study

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotho

Humanities 100. Since 1919

11 September 2020

Dear Miss ES Torr

Project Title:	Hope and well-being among South African adults: A correlational analysis among four age groups
Researcher:	Miss ES Torr
Supervisor(s):	Prof C Guse
Department:	Psychology
Reference number:	20618248 (HUM048/0720)
Degree:	Masters

Thank you for the application that was submitted for ethical consideration.

The Research Ethics Committee notes that this is a literature-based study and no human subjects are involved.

The application has been **approved** on 27 August 2020 with the assumption that the document(s) are in the public domain. Data collection may therefore commence, along these guidelines.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. However, should the actual research depart significantly from the proposed research, a new research proposal and application for ethical clearance will have to be submitted for approval.

We wish you success with the project.

Sincerely,

Prof Innocent Pikirayi
Deputy Dean: Postgraduate Studies and Research Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: PGHumanities@up.ac.za

Appendix C:

One-way Multivariate Analysis of Variance (MANOVA) assumption testing

Table C1

Tests of univariate normality

		Shapiro-Wilk		
	Age Group	Statistic	df	*p*
Perceived Hope	Emerging Adult	.97	132	.002
	Early Adult	.90	137	.000
	Middle Adult	.97	141	.002
	Older Adult	.92	55	.002
Dispositional Hope	Emerging Adult	.97	132	.003
	Early Adult	.94	137	.000
	Middle Adult	.96	141	.001
	Older Adult	.91	55	.001
Well-Being	Emerging Adult	.96	132	.001
	Early Adult	.96	137	.000
	Middle Adult	.96	141	.000
	Older Adult	.97	55	.266

Appendix D:

Hierarchical Regression Models

Table D1

Final hierarchical regression model of Dispositional Hope in the emerging adulthood group (N=132)

		95% CI for B					
Variable	B	LL	UL	SE B	β	R^2	ΔR^2
Step 1						.08	.08*
Constant	32.34***	25.28	39.39	3.57			
Population Group[a]	-.73*	-1.38	-.08	.33	-.20*		
Family Status[b]	-.01	-.69	.66	.34	.00		
Education[c]	.14	-.66	.94	.40	.03		
Physical Health[d]	1.30*	.17	2.42	.57	.20*		
Step 2						.28	.19***
Constant	34.64***	28.19	41.09	3.26			
Population Group[a]	-.61*	-1.20	-.01	.30	-.16		
Family Status[b]	-.11	-.72	.50	.31	-.03		
Education[c]	-.16	-.89	.57	.37	-.03		
Physical Health[d]	1.09*	.07	2.10	.51	.16*		
Personal mastery and hedonic experiences (F1)	1.42**	.53	2.32	.45	.25**		
Social-relational experiences (F2)	1.84***	1.07	2.61	.39	.37***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other

[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed

[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree

[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy

CI = confidence interval; LL = lower limit; UL = upper limit

*p <.05 **p <.01 *** p <.001

Table D2

Final hierarchical regression model of Perceived Hope in the emerging adulthood group (N=132)

Variable	B	95% CI for B		SE B	β	R^2	ΔR^2
		LL	UL				
Step 1						.12	.12**
Constant	29.12***	21.78	36.45	3.71			
Population Group[a]	-1.11**	-1.78	-.43	.34	-.28**		
Family Status[b]	.25	-.45	.96	.36	.06		
Education[c]	-.17	-1.00	.66	.42	-.03		
Physical Health[d]	1.32*	.25	2.49	.59	.19*		
Step 2						.28	.16***
Constant	29.51***	22.84	36.18	3.37			
Population Group[a]	-.84**	-1.46	-.21	.32	-.21**		
Family Status[b]	.25	-.39	.88	.32	.25		
Education[c]	-.25	-1.01	.50	.38	-.05		
Physical Health[d]	1.17*	.11	2.24	.54	.17*		
Social-relational experiences (F2)	2.15***	1.34	2.96	.41	.40***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other

[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed

[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree

[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy

CI = confidence interval; LL = lower limit; UL = upper limit

*p <.05 **p <.01 *** p <.001

Table D3

Final hierarchical regression model of Well-Being in the emerging adulthood group (N=132)

Variable	B	95% CI for B LL	UL	SE B	β	R^2	ΔR^2
Step 1						.15	.15***
Constant	16.61	-2.42	35.65	9.62			
Population Group[a]	-.18	-1.94	1.57	.89	-.02		
Family Status[b]	-.33	-2.15	1.49	.92	-.03		
Education[c]	2.75*	.60	4.90	1.09	.21*		
Physical Health[d]	6.06***	3.02	9.10	1.54	.33***		
Step 2						.31	.16***
Constant	22.99*	5.40	40.58	8.89			
Population Group[a]	.07	-1.55	1.70	.82	.01		
Family Status[b]	-.60	-2.26	1.06	.84	-.06		
Education[c]	1.92	-.07	3.91	1.01	.15		
Physical Health[d]	5.50***	2.74	8.27	1.40	.30***		
Personal mastery and hedonic experiences (F1)	4.02**	1.58	6.46	1.23	.25**		
Social-relational experiences (F2)	4.53***	2.43	6.63	1.06	.32***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other

[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed

[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree

[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy

CI = confidence interval; LL = lower limit; UL = upper limit

*p <.05 **p <.01 *** p <.001

Table D4

Final hierarchical regression model of Dispositional Hope in the early adulthood group (N=137)

Variable	B	95% CI for B LL	95% CI for B UL	SE B	β	R^2	ΔR^2
Step 1						.21	.21***
Constant	24.16***	16.30	32.01	3.97			
Population Group[a]	-1.15**	-1.89	-.40	.38	-.24**		
Family Status[b]	.49	-.18	1.17	.34	.11		
Education[c]	.58	-.44	1.61	.52	.09		
Physical Health[d]	2.38***	1.20	3.56	.60	.32***		
Step 2						.48	.27***
Constant	29.20***	22.71	35.70	3.28			
Population Group[a]	-.67*	-1.28	-.05	.31	-.14*		
Family Status[b]	.39	-.16	.94	.28	.09		
Education[c]	.14	-.70	.98	.42	.02		
Physical Health[d]	1.51**	.54	2.49	.50	.20**		
Personal mastery and hedonic experiences (F1)	3.41***	2.59	4.22	.41	.55***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other
[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed
[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree
[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy
CI = confidence interval; LL = lower limit; UL = upper limit
*p <.05 **p <.01 *** p <.001

Table D5

Final hierarchical regression model of Perceived Hope in the early adulthood group (N=137)

Variable	B	95% CI for B LL	95% CI for B UL	SE B	β	R^2	ΔR^2
Step 1						.16	.16***
Constant	23.52***	15.00	32.05	4.31			
Population Group[a]	-1.21**	-2.01	-.40	.41	-.24**		
Family Status[b]	.86*	.12	1.59	.37	.19*		
Education[c]	.33	-.78	1.44	.56	.05		
Physical Health[d]	1.74**	.46	3.02	.65	.22**		
Step 2						.48	.32***
Constant	29.97***	23.03	36.92	3.51			
Population Group[a]	-.43	-1.11	.24	.34	-.09		
Family Status[b]	.47	-.13	1.07	.30	.10		
Education[c]	-.18	-1.08	.72	.45	-.03		
Physical Health[d]	.77	-.27	1.82	.53	.10		
Personal mastery and hedonic experiences (F1)	2.35***	1.49	3.21	.44	.36***		
Social-relational experiences (F2)	2.41***	1.51	3.31	.45	.34***		
Religious experiences (F3)	2.15***	1.24	3.05	.46	.31***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other

[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed

[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree

[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy

CI = confidence interval; LL = lower limit; UL = upper limit

*p <.05 **p <.01 *** p <.001

Table D6

Final hierarchical regression model of Well-Being in the early adulthood group (N=137)

Variable	B	95% CI for B LL	UL	SE B	β	R^2	ΔR^2
Step 1						.22	.22***
Constant	14.38	-5.65	34.41	10.12			
Population Group[a]	-1.69	-3.58	.21	.96	-.14		
Family Status[b]	1.16	-.56	2.88	.87	.10		
Education[c]	1.36	-1.25	3.97	1.32	.08		
Physical Health[d]	7.65***	4.65	10.65	1.52	.40***		
Step 2						.45	.22***
Constant	28.04**	8.81		10.61	45.47		
Population Group[a]	-.68	.83	-.06	-2.32	.96		
Family Status[b]	.97	.74	.09	-.50	2.43		
Education[c]	.02	1.14	.00	-2.23	2.28		
Physical Health[d]	5.57***	1.32	.29	2.95	8.19***		
Personal mastery and hedonic experiences (F1)	6.79***	1.10	.43	4.62	8.96***		
Social-relational experiences (F2)	4.14***	1.14	.24	1.88	6.40***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other
[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed
[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree
[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy
CI = confidence interval; LL = lower limit; UL = upper limit
*p <.05 **p <.01 *** p <.001

Table D7

Final hierarchical regression model of Dispositional Hope in the middle adulthood group (N=141)

Variable	B	95% CI for B LL	95% CI for B UL	SE B	β	R^2	ΔR^2
Step 1						.14	.14***
Constant	30.52***	22.31	38.72	4.15			
Population Group[a]	-1.20*	-2.21	-.19	.51	-.19*		
Family Status[b]	-.22	-.93	.48	.35	-.05		
Education[c]	.66	-.28	1.60	.48	.11		
Physical Health[d]	1.81***	.86	2.77	.48	.30***		
Step 2						.34	.20***
Constant	37.36***	29.83	44.90	3.81			
Population Group[a]	-1.01*	-1.90	-.12	.45	-.16*		
Family Status[b]	-.44	-1.06	.18	.31	-.10		
Education[c]	-.15	-1.01	.72	.44	-.02		
Physical Health[d]	1.29**	.44	2.15	.43	.22**		
Personal mastery and hedonic experiences (F1)	2.72***	1.87	3.57	.43	.47***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other
[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed
[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree
[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy
CI = confidence interval; LL = lower limit; UL = upper limit
*p <.05 **p <.01 *** p <.001

Table D8

Final hierarchical regression model of Perceived Hope in the middle adulthood group (N=141)

Variable	B	95% CI for B LL	95% CI for B UL	SE B	β	R^2	ΔR^2
Step 1						.11	.11**
Constant	37.64***	29.97	45.31	3.88			
Population Group[a]	-1.50**	-2.44	-.56	.48	-.25**		
Family Status[b]	.08	-.58	.74	.33	.02		
Education[c]	-.75	-1.63	.13	.45	-.14		
Physical Health[d]	.98*	.08	1.87	.45	.18*		
Step 2						.30	.18***
Constant	41.86***	34.64	49.08	3.65			
Population Group[a]	-.99*	-1.87	-.12	.44	-.17*		
Family Status[b]	-.41	-1.04	.22	.32	-.10		
Education[c]	-.84*	-1.67	.00	.42	-.15*		
Physical Health[d]	.35	-.49	1.19	.42	.06		
Personal mastery and hedonic experiences (F1)	1.47***	.65	2.28	.41	.28***		
Social-relational experiences (F2)	1.60***	.79	2.41	.41	.29***		
Religious experiences (F3)	1.29**	.53	2.06	.39	.26**		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other

[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed

[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree

[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy

CI = confidence interval; LL = lower limit; UL = upper limit

*p <.05 **p <.01 *** p <.001

Table D9

Final hierarchical regression model of Well-Being in the middle adulthood group (N=141)

Variable	B	95% CI for B		SE B	β	R^2	ΔR^2
		LL	UL				
Step 1						.11	.11**
Constant	28.99**	7.24	50.74	11.00			
Population Group[a]	-1.48	-4.16	1.20	1.35	-.09		
Family Status[b]	.42	-1.44	2.28	.94	.04		
Education[c]	2.10	-.40	4.60	1.26	.13		
Physical Health[d]	4.64***	2.11	7.17	1.28	.30***		
Step 2						.27	.16***
Constant	43.23***	22.50	63.95	10.48			
Population Group[a]	-.86	-3.31	1.59	1.24	-.05		
Family Status[b]	-.11	-1.82	1.60	.86	-.01		
Education[c]	1.10	-1.29	3.49	1.21	.07		
Physical Health[d]	2.87*	.48	5.27	1.21	.18*		
Personal mastery and hedonic experiences (F1)	5.10***	2.76	7.43	1.18	.34***		
Social-relational experiences (F2)	4.27***	1.94	6.59	1.18	.28***		

Note. [a] 1 = Black, 2 = Coloured, 3 = Indian, 4 = White, 5 = Other
[b]1 = Still living with my parents, 2 = Single, unmarried, 3 = Living in a partnership but in a separate household, 4 = Living together in a partnership, 5 = Married, 6 = Divorced/separated, 7 = Widowed
[c]1 = Did not finish school, 2 = Primary school, 3 = High school up to grade 10, 4 = High school up to grade 12, 5 = Diploma, 6 = University degree
[d]1 = I am seriously ill, 2 = I have serious health problems, 3 = I have major health problems, 4 = I have minor health problems, 5 = I am mostly healthy, 6 = I am perfectly healthy
CI = confidence interval; LL = lower limit; UL = upper limit
*p <.05 **p <.01 *** p <.001

Appendix E:

Language Editing Confirmation Letter

DOCEDIT

genevieveswim@gmail.com
Cell: 083 453 5913

3 November 2022

TO WHOM IT MAY CONCERN

This serves to confirm that I have edited **Emma Torr's** dissertation: ***Hope and Well-Being among South African Adults: A Correlational Analysis among Four Age Groups.***

I have corrected language errors including punctuation, article usage, tenses and subject-verb agreement. I have also improved on her choice of words, where necessary. Furthermore, I have enhanced the structure of various sentences as well as the flow and clarity of the language.

I am an academic language editor. I have a PhD in Psychology. Furthermore, I majored in English and taught English Home Language for many years. I have edited a number of dissertations and theses. I also do freelance editing for Crimson (Enago), an overseas based company that does academic editing.

Should you have any concerns, please contact me. I can be contacted on 083 453 5913.

Kind regards

Dr Genevieve Symonds

(PhD – Psychology)