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**Post Traumatic Growth, Meaning in Life and Hope among Emerging**

**Adults**

by

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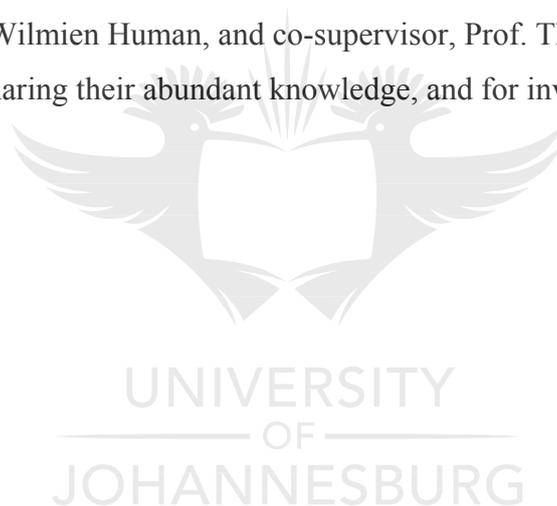
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## Abstract

Positive psychology (PP) is interested in individuals' optimal human functioning and focuses on positive experiences and positive characters and virtues. A developmental phase that seems to particularly benefit from positive functioning is emerging adulthood, which refers to individuals between the ages of 18 and 25 years. When these individuals enter the university context as students, additional factors may impact on their development. Moreover, although emerging adults tend to seem hopeful about the future, have the potential to establish close relationships and are capable of positive change, yet research has mainly focussed on negative aspects concerning this life phase. This study therefore aims to focus on aspects that could be indicators of positive functioning during this life phase, namely post traumatic growth (PTG), meaning in life (MIL) and hope. This study also examines the relationship between these constructs, as well as MIL and hope as predictors of PTG.

In order to achieve these aims, a quantitative, cross-sectional and correlational research design was implemented. The sample consisted of emerging adults ( $n= 166$ ), who completed an online survey, which consisted of a Biographical Questionnaire, the Post Traumatic Growth Inventory (PTGI), the Meaning in Life Questionnaire (MILQ) and the Adult Hope Scale (AHS). The MILQ was used to determine the Presence of Meaning (MIL-P) and Search for Meaning (MIL-S). The participants in this study indicated high levels of PTG, MIL and hope. Relationships between PTG and MIL-P, PTG and hope and MIL- P and hope were positive and statistically significant. The prediction values of both MIL-P and hope towards PTG were statistically significant. Further research is needed to better understand the factors that influence the relationships between PTG, MIL and hope. Recommendations within this context are discussed.

*Key Words: Positive psychology, emerging adults, post traumatic growth, meaning in life, hope.*

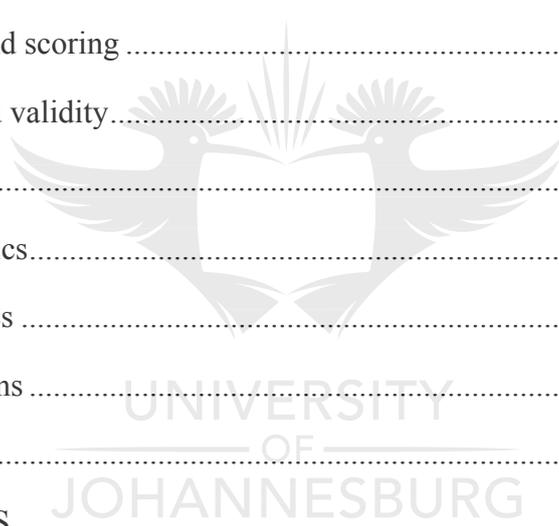
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# CHAPTER 1: INTRODUCTION, PROBLEM STATEMENT, AIMS AND OVERVIEW

## 1.1 Introduction and Problem Statement

Emerging adulthood, a life course distinguished by Arnett (1998), can be made challenging by various developmental tasks and adjustments, such as entering university (Douglas, 2007; Fuligni, 2007; Schwartz et al., 2015). Befriending people and partaking in new activities form part of the university environment, and can have significant influence on an emerging adult's positive functioning (Cohen, Gottlieb, & Underwood, 2000; Galambos, Barker, & Krahn, 2006). However, positive outcomes of psychological functioning in a university context include avoidance of substance abuse, absence of anti-social behaviour and positive academic performance (Leontopoulou, 2015; Masten et al., 1995; Schulenberg, Braynt, & O'Malley, 2004; Taylor, Doane, & Eisenberg, 2014). Within South Africa, positive functioning is further challenged by factors such as poverty and unemployment. These factors has been associated with South African youth being more likely to engage in risk behaviour (Eaton, Flisher, and Aarø, 2003).

Yet despite research indicating that emerging adults are capable of positive change (Masten, Obradovic & Burt, 2006), research has mainly held a negative focus (Schulenberg & Zaret, 2006, Smart & Sanson, 2005). This negative focus could be associated with traditional psychology's focus on illness, rather than health. Positive psychology (PP), however, advocates a balance between psychology research and practice, focussing on constructs that promote health and positive functioning (Linley, Joseph, Harrington, & Wood, 2006; Walsh, 2012). Within the field of PP, especially among emerging adults, constructs such as post traumatic growth (PTG), meaning in life (MIL) and hope remain under-researched (Gradisek, 2012; Peterson & Seligman, 2004).

PTG is defined as positive change or improved functioning that occurs as a consequence of the struggle precipitated by trauma (Tedeschi & Calhoun, 1996, 2004). The study of PTG during emerging adulthood is of relevant interest to this current study because of the prevalence of trauma during the emerging adult phase (King, 2014), especially within South Africa (Govender, Matzopoulos, Makanga, & Corrigan, 2012). Despite negative outcomes of such trauma (Finkelhor, Ormond, & Turner, 2009; Messman-Moore, Walsh, & DeLillo, 2010; Rodriguez-Srednicki, 2002; Scott, 2007; Senn & Carey, 2010; Walsh, Latzman, & Latzman, 2013), positive change such as coping, self-reliance, self-efficacy and resourcefulness have also been reported (Gottlieb, Still, & Newby-Clark, 2007). One construct that contributes to the development of PTG, is MIL.

MIL can be understood in terms of two dimensions, the presence of meaning in life (MIL-P) and the search for meaning in life (MIL-S). MIL-P is the perceived experience of purpose and significance in life and is associated with well-being (Steger, Kawabata, Shimeji, & Otake, 2008; Steger et al., 2009), positive affect, life satisfaction (Schnell, 2010) and identity formation (Steger et al., 2009) among emerging adults. MIL-S is the quest towards personal meaning and purpose (Steger, Kashdan, Sullivan, & Lorentz, 2008) and, unlike MIL-P, has been associated with lower levels of well-being (Brassai, Pikkio, & Steger, 2011; DeZutter et al., 2014), possibly because of its connection with negative rumination (Taku, Calhoun, Cann, & Tedeschi, 2008). Because MIL could assist emerging adults in adapting to a new environment such as university, Steger et al. (2009) advocate for further research. A construct associated with MIL, and a potential focus for such research among emerging adults, is hope (Yalcin & Malkoc, 2015).

Snyder's (2000) definition of hope comprises three elements, goals, agency and pathways. Snyder (2000) writes that hope is actively striving (agency) towards attainable goals, accompanied by routes (pathways) leading to these goals. As in the case of PTG and MIL,

higher levels of hope have been associated with higher levels of well-being during various developmental phases (Snyder, 2000). During emerging adulthood specially, hope has been shown to facilitate goal setting (Levine, 1998) and future orientated thinking (Dalton & Crosby, 2009).

These three principles, PTG, MIL and hope are interrelated. MIL is correlated with positive changes and has significantly predicted PTG scores in previous studies (Linley & Joseph, 2011; Steger, Frasier & Zacchanini, 2008). Furthermore, some research suggests a positive relationship between MIL and hope (Dogra, Basu, & Das, 2011; Feldman & Snyder, 2005) and between PTG and hope (Ai, Tice, Whitsett, Ishitaka, & Chim, 2007; Yuen, Ho, & Chan, 2014). A positive correlation was discovered between participants who claimed they have meaningful lives and participants who were able to set hopeful goals (Dogra et al., 2011). Additionally, higher levels of hope increased growth from war related trauma (Ai et al., 2007; Snyder, 2000). However, it is not clear how hope, PTG and MIL collaborate to facilitate functioning among emerging adults in a South African context.

In summary, PTG, MIL and hope could improve positive functioning among emerging adults. Since this life phase is accompanied by various developmental tasks and challenges, these constructs could act as a buffer against negative outcomes. The lack of research concerning PTG, MIL and hope among emerging adults, as well as their interrelationships, motivated the research aims outlined below.

## **1.2 Research Aims**

The broad aim of the study was to examine aspects of the relationships between PTG, MIL and hope among emerging adults. The three specific aims were:

1. To examine the levels of PTG, MIL and hope among emerging adults.

2. To examine the relationships between PTG, MIL and hope among emerging adults.
3. To examine MIL-P, MIL-S and hope as predictors of PTG.

### **1.3 Chapter Overview**

Having described the problem statement and aims of the study, this section provides an overview of the chapters that follow. Chapter two comprises a comprehensive literature review of emerging adults as a developmental phase, as well as PTG, MIL and hope, within the framework of PP.

Chapter three presents the research method applied to reach the research aims, and describes the sample, sampling procedure and measurements implemented. It also provides details regarding the statistical techniques used for data analysis as well as the ethical considerations.

Chapter four offers the results of the descriptive and inferential statistical analysis, as well as the measurements' reliability indices. The results are reported upon in accordance with the research aims.

Chapter five concludes with a discussion of the results of the findings in the context of present research and theoretical perspectives. Limitations of the study are noted and recommendations for further research are offered.

## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

Freud advocates that any normal, healthy person should be able to love and work. Yet where Freud - along with traditional psychology - views psychological health as the opposite of sickness, PP regards psychological health as optimal human functioning. Optimal human functioning is associated with factors such as personal growth, meaning and hope, among others (Walsh, 2012).

PP, the explanatory framework for this study, identifies different facets of optimal human functioning (Linley et al., 2006), which are discussed below. Because this study is interested in, and therefore conceptualises, the developmental phase of emerging adulthood, as well as the positive constructs, PTG, MIL and hope, these ideas will be addressed next. The chapter concludes with an examination of the relationships between PTG, MIL and hope among emerging adults.

### 2.2 PP as Explanatory Framework

Human nature consists of both good and bad character traits. Although PP agrees with this statement, it embraces and focuses on the good, rather than the bad, in humanity (Seligman, 2002). The change of focus from traditional psychology's illness-fixing nature towards the comprehension and development of human strengths was proposed by Martin Seligman in 1998 (Joseph & Linley, 2008). PP is presently defined as a field of psychology interested in the scientific study of optimal human functioning and is concerned with individuals, groups and institutions (Gable & Haidt, 2005; Linley et al., 2006).

As indicated above, historically, the focus in psychology was on negative behaviour and various forms of dysfunctions. PP focuses on positive experiences and positive character/virtues (Seligman, 2002) and while it acknowledges human suffering and the negative aspects of life, as traditional psychology does, PP aims to study the alternatives, for example human resilience, altruism and the experience of joy (Gable & Haidt, 2005).

Consequently, one of the aims of PP is to generate a balance in psychology research and practice (Linley et al., 2006). More specifically, PP aims to attain scientific understanding and inspire effective interventions to assist individuals in functioning optimally (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000).

In order to understand the optimal functioning of individuals, various frameworks of PP have been suggested (Rusk & Waters, 2015), such as the Virtues in Action and Character Strengths Framework (Peterson & Seligman, 2004), the PERMA model (a multi-dimensional framework of five measurable elements of well-being) (Seligman, 2011) and the Engine of Well-being Framework (Jayawickreme, Forgeard, & Seligman, 2012). Unfortunately, these frameworks lack a thorough explanation of optimal functioning/well-being in that they only focus on well-being outcomes and not the inputs and processes leading to well-being (Rusk & Waters, 2015).

Thus, Rusk and Waters (2015) have set out to develop a clearer system model in order to connect well-being interventions with well-being outcomes, which include integral aspects of psycho-social functioning. From their investigation the authors noted five domains of positive psycho-social functioning:

- attention and awareness (including mindfulness);
- comprehension and coping (including the manner in which people comprehend stimuli, make predictions and decide on response methods);

- emotions (which is closely related to awareness domain);
- goals and habits (including goal striving, motivation and habitual behaviour); and
- virtues and relationships (including social relationships, social functioning in organisational contexts, romantic and family relationships, ethics and virtues at societal level and religion and spirituality).

Positive constructs that share common factors with these domains are PTG, MIL and hope.

For instance, PTG is associated with improved or meaningful relationships (Wehmeyer, 2010) and spiritual change (Tedeschi & Calhoun, 2004), while goal accomplishment and striving are strongly associated with MIL (King, Hicks, Krull, & Del Gaiso, 2006; Steger et al., 2009) and hope (Snyder, 2000; 2002).

Although research in the field of PP focuses on various facets of positive psychological functioning (Gradisek, 2012; Peterson & Seligman, 2004), this study explores these three facets: PTG, MIL and hope. More specifically, this study aims to examine these constructs among emerging adults.

Positive functioning among emerging adults is associated with greater coping abilities and healthier interpersonal relationships. In addition, emerging adults demonstrate a more positive perspective on life when functioning positively (Leontopoulou, 2015; Masten et al., 1995; Schulenberg, et al., 2004; Taylor et al., 2014).

The need for research on PTG during this life phase, partly owes to the prevalence of trauma among emerging adults (Arnett, 2005), creating the need for researching the aftermath of such trauma. In addition, it has been suggested that more research on how emerging adults develop a sense of meaning and experience hope is needed, as it could be applicable in the adaption to a new environment (university) (Steger, Mann, Mitchels, & Cooper, 2009).

## **2.3 Emerging Adulthood**

Despite evidence of the importance of positive functioning during emerging adulthood as indicated above, an abundance of literature focuses on negative functioning, contributing to traditional psychology's ill-fixing nature (Seligman, 2002). Moreover, studies that explore factors contributing to the overall positive psychological functioning during this developmental phase are still limited (O'Connor, 2011b; Padilla-Walker, Barry, Carroll, Madsen, & Nelson, 2008). This study aims to contribute to this field of knowledge, but first, in this section, some definitions need to be provided. Thus, early conceptualisations of emerging adulthood are examined, a definition is introduced and characteristics associated with emerging adults are elaborated upon. Thereafter, developmental tasks related to this phase, such as attending university and the transition to adulthood, are reviewed.

### **2.3.1 Early Conceptualisation of Emerging Adulthood**

Before the official conceptualisation of emerging adulthood, Erikson (1963) seemed to identify or distinguish a similar period. Erikson's (1963) stages of psychosocial development include the phases of adolescence and young adulthood, emphasising that the phase of adolescence in industrialised societies seems to be prolonged. Growing interest by various scholars on this age period after Erikson's work, required a new conceptualisation of this period (Arnett, 2007).

### **2.3.2 Defining Emerging Adulthood**

Arnett's (1998) conceptualisation of emerging adulthood refers to the life phase from the late teens through the early twenties, focussing on ages 18-25. Despite arguments against this

distinction (Collins & Madsen, 2006), Arnett holds that emerging adulthood gave way for the recognition of not only a prolonged transition into adulthood, but a separate period during the life course (Arnett, 2007). Arnett describes emerging adults as uncertain and focused on the self with no obligation toward others and prone to experiencing a feeling of being in-between (Arnett, 2004). This in-between feeling possibly derives from being situated between the adolescent's need for parental care and stability and adulthood stability and self-sufficiency (Arnett, 2014).

From emerging adults' perspective, adulthood means the end of independence and is a danger that threatens exploration, love, fun and education. Therefore, for emerging adults, adulthood needs to be avoided as long as possible (Arnett, 2002). Before entering the inevitable life phase of adulthood, emerging adults need to assert individuality, develop a sense of self or identity, travel and socialise (Arnett, 2004; Budgeon, 2003). Transitioning to adulthood is, however, only one of the developmental tasks of emerging adulthood.

### **2.3.3 Developmental Tasks during Emerging Adulthood**

Arnett deems certain developmental tasks integral to emerging adulthood. The importance of developmental tasks during life phases is not a new concept. According to Erickson's stages of psychosocial development, the adolescent has to develop the virtue of fidelity, through resolving the conflict between identity and identity confusion (Fleming, 2004). Fidelity involves being able to commit to others and accept others despite personal differences (McLeod, 2013). Erickson further suggests that during early adulthood, traditionally between the ages 19 and 40, the virtue of love has to develop, through the resolution of the conflict between intimacy and isolation. By having a strong sense of identity, resolved in the previous life-phase, emerging adults will be able to experience intimacy (Fleming, 2004). The act of

marriage has also traditionally been viewed as the definitive development towards adulthood and social requirement for emerging adults has also been to enter marriage and parenthood (Arnett, 1998; Furstenberg, 2000). Other traditional indications of reaching adulthood include completed education, onset of full-time work and financial independence (Arnett, 2000).

Furthermore, some authors suggest that accepting responsibility for the self and making independent decisions regarding the self, beliefs or values are important in the development towards adulthood (Andrew, Eggerling-Boeck, Sandefur, & Smith, 2007; Arnett, 1998; Aronson, 2008; Scheer, Unger, & Brown, 1996; Shanahan 2000). O'Connor (2011a) agrees, suggesting emerging adults' growth in responsibility is of great social and economic importance to individuals, communities and societies, especially when these young people step into adult roles.

Arnett (2000) deems the following three developmental tasks, central to emerging adulthood. The first is being able to *cope after leaving home*. This task is similar to the domain of positive psycho-social functioning proposed by Rusk and Waters (2015), and involves the ability to cope in an unfamiliar environment. Leaving the natal home is a critical component of the development towards adulthood (Furstenberg, 2000), and the extensiveness of the transition from emerging adulthood to adulthood (18 to 25) gives emerging adults ample opportunity to do so (Goldschneider & Goldschneider, 1999). This lengthy transition period also compensates for the gap between the onset of sexual relations and marriage (Furstenberg, 2000).

The second developmental task proposed by Arnett (2000) is closely associated to Erickson's virtue of love. This task is *growth in capacity for mature, intimate friendships and romantic relationships, whilst sustaining a close autonomous relationship with parents*. The probability of building strong relationships outside of the home environment is increased,

when a secure attachment and intimacy has been established with caregivers (Collins & Sroufe, 1999). Moreover, American adolescents who display an autonomous state of mind after leaving home to study report less stress and anxiety throughout the first year of college (Kobak & Sceery, 1988). A preoccupied tendency, in contrast, leads to greater stress and loneliness (Larose & Bernier, 2001). Other studies found that emerging adults not only seem to possess a great depth of intimacy, but as the quality of interpersonal relationships increase, so does actual and perceived emotional support. This support provides resources to promote health and reduce stress, generally improving psychological well-being (Cohen et al., 2000; Galambos, et al., 2006).

The third important developmental task according to Arnett (2000) is similar to Erickson's virtue of fidelity, reviewed previously, *the development of a sense of competence and individuation/identity*. Emerging adulthood is a time of intense identity exploration (Arnett, 2004; Padilla-Walker et al., 2008; Roisman, Masten, Coatsworth, & Tellenen, 2004; Schulenberg, Maggs, & O'Malley, 2003), which involves exploring life's possibilities in order to progressively make enduring decisions (Arnett, 2000). Additionally, emerging adults seem to possess the emotional maturity and motivation to engage in self-reflection, leading to greater self-understanding (Gottlieb, et al., 2007). A conducive environment for the development of identity is the university context and, from a developmental perspective most university students are situated in emerging adulthood (Douglas, 2007; Fuligni, 2007; Scwarths et al., 2015). The next section will therefore focus on emerging adults in university.

#### **2.3.4 Attending University and the Transition to Adulthood**

Emerging adults' identity formation is influenced and strengthened by the desire to make wise choices, such as the decision to study at a tertiary institution, make independent career

and housing choices, leave the natal home and find love and work. Also important is being able to determine personal world views, all whilst being somewhat protected from adulthood responsibility (Arnett, 2004). Along with activities participated in and people with whom the emerging adult is surrounded, identity development can influence well-being/positive functioning (Cohen et al., 2000; Galambos et al., 2006).

Yet although the university context may be a conducive environment to successfully accomplish important developmental tasks, it could also be a contributor to certain stressors (D’Zurilla & Sheedy, 1991; Towbes & Cohen, 1996). Examples of these stressors include relational stress concerning a partner (Leontopoulou, 2015; Ross, Bradley, & Heckert, 1999). Adding to his pressure is the notion among South African youth to engage in unprotected sex, therefore increasing the risk of contracting HIV (MacPhail & Cambell, 2000). Other pressures include, earning good results or a degree (Hirsch & Ellis, 1996), unclear assignments and uncomfortable classrooms (Kohn & Frazer, 1986), relations with lecturers and time pressure (Sgan-Cohen & Lowental, 1988). A previous study identified five sources of stress among university students: change in eating habits, change in sleeping habits, recess, increased work load and new responsibilities (Ross et al., 1999).

Stressors such as these may result in negative functioning among emerging adults, apparent in alcohol abuse (Slutske et al., 2004; Smith, Bahar, Cleeland, & Davis, 2014; Walsh et al., 2013), risky sexual behaviour (Wilson & Widom, 2008), anger, anxiety, depression (Galambos et al., 2006) and trauma (Arnett, 2005). In traditional psychology, these facets of negative functioning among emerging adults, among others, were a major focus in existing research (Schulenberg & Zaret, 2006, Smart & Sanson, 2005). This study, however, rather aims to address a void in the positive functioning among emerging adults.

### **2.3.5 Conclusion**

Despite the stressors to which emerging adults are exposed, these young people seem hopeful about the future (Arnett & Schwab, 2012) and are capable of positive change (Masten et al., 2006). Positive change develops into positive psychological functioning, which is associated with avoidance of substance abuse, absence of anti-social behaviour and improved academic performance (Leontopoulou, 2015; Masten et al., 1995; Schulenberg et al., 2004; Taylor et al., 2014).

As PP seeks to focus on the positive psychological functioning of individuals (Gable & Haidt, 2005; Linley et al., 2006), this study aims to focus on concepts that could be indicators of positive psychological functioning among emerging adults. The constructs this study aims to explore are PTG, MIL and hope, which are discussed individually below.

### **2.4. Post Traumatic Growth (PTG)**

Trauma is a familiar phenomenon, especially in the South African context, and most South Africans will experience at least one traumatic event during a lifetime, with the majority reporting multiple traumas (Williams et al., 2007). Trauma is an emotional response after a life threatening, helpless event such as rape, natural disaster, medical conditions, disability, personal tragedy and bereavement (Ai, Tice, Whitsett, Ishisake, Chim, 2007; APA, 2015; Peterson, Park, Pole, D'Andrea, & Seligman, 2008; Tolin & Foa, 2008). Traumatic events can potentially lead to severe psychological distress and risk behaviours, but may also elicit growth. For instance, American emerging adults reported positive changes after life altering experiences (Arpawong et al., 2016). This growth process that may follow trauma that is PTG (Dursun, Saracli, & Konuk 2014). Thus, in the following section, early conceptualisations of growth will be reviewed and a definition of PTG is introduced. Tedeschi and Calhoun's

(2004) model of PTG will be elaborated upon, followed by a review of PTG among emerging adults.

#### **2.4.1 Early Conceptualisations of Growth from Trauma**

The concept of growing psychologically as a result of suffering has been proposed before.

Writers such as Caplan (1964), Dohrenwend (1978) and Frankl (1963) pondered the possibility of positive change through suffering. Ancient traditions, such as those associated with Islam, consider suffering to be unavoidable if one is to fulfil a bigger purpose (Bowker, 1970). Christians also believe that the suffering of Jesus has life-changing consequences, and earlier Greeks contemplated positive change through suffering (Tedeschi & Calhoun, 1995).

Before the term PTG originated, terms such as “perceived benefits”, “positive aspects” and “the transformation of trauma” were used to describe the above (Tedeschi & Calhoun, 1995).

Other terms used to describe growth include stress-related growth (Weinrib, Rothrock, Johnson, & Lutgendorf, 2006; Siegel, Schrimshaw, & Pretter, 2005) and benefit finding (Helgeson, Reynold, & Tomich, 2006). However, PTG (Tedeschi & Calhoun, 2004) is widely accepted in the PP literature to describe growth after the experience of trauma.

#### **2.4.2 Defining PTG**

The occurrence of positive psychological change as a result of the struggle accompanied by the trauma (Tedeschi & Calhoun, 1996, 2004) is referred to as PTG. More specifically,

“Posttraumatic growth is not simply a return to baseline – it is an experience of improvement that for some persons is deeply profound” (Tedeschi & Calhoun, 2004). Studies reported

PTG following various traumatic life events, such as loss of a loved one (Braun & Berg,

1994), chronic/acute illness (Schroevvers & Teo, 2008), violent/abusive crime (Wusik, Smith, Jones, & Hughes, 2015), a vehicle accident (Nishi, Matsuako, & Kim, 2010), physical injury (Kampman, Hefferon, Wilson, & Beale, 2015), failing a module at university (Gottlieb et al., 2007; Taku et al., 2007), divorce of parents (Taku et al., 2007; Tedeschi & Calhoun, 1996) and breakup of a romantic relationship (Gottlieb et al., 2007; Taku et al., 2007). After investigating various incidents of reported growth, Tedeschi & Calhoun (1996) introduced five domains of growth:

- *Relating to others.* This domain concerns the experience of closeness to others as a result of a crisis, specifically towards people who are supportive during that period. The reasons may possibly pertain to the change of view concerning humanity, and an increase in compassion, empathy and understanding towards others who suffer (Tedeschi & Calhoun, 2004). Additionally, individuals may realise the importance (Harvey, 2007) and meaning (Wehmeyer, 2010) of relationships.
- *New Possibilities.* After a crisis, individuals may realise new possibilities, resulting in new activities, careers and interests (Calhoun & Tedeschi, 2014). For example, after suffering a loss themselves (for example to cancer), individuals may have the desire to become oncology nurses, and to support others in times of suffering and loss (Tedeschi & Calhoun, 2004).
- *Personal strength.* A crisis leads to disruption of the assumptive world, which could give rise to changes in the perception of self and the world (Calhoun & Tedeschi, 2014). Although a realisation of vulnerability and limitations may occur (Calhoun & Tedeschi, 2014; Zoellner & Maercher, 2006), there is always the possibility for a realisation of personal strength (Harvey, 2007; Calhoun & Tedeschi, 2014; Weiner, 1998). In other words, while after a crises an individual may experience the world as being more dangerous and experience unbearable feelings of vulnerability, that same

individual could also believe that even although tried and tested, his/her survival is a clear sign of personal strength (Calhoun & Tedeschi, 2014). Participants in a previous study have indeed reported personal strength in the form of feeling strong enough to overcome anything, after living through the loss of a loved one (Wehmeyer, 2010).

- *Spiritual change*. Spiritual change is an integral part of PTG (Calhoun & Tedeschi, 2014; Tedeschi & Calhoun, 2004). Although the specifics of transformation, timeframe and course of the spiritual change may vary, new-found meaning, purpose and satisfaction may be experienced. Some people do experience a loss of faith, but these instances do not outnumber the positive spiritual changes reported (Tedeschi & Calhoun, 2004).
- *Appreciation of life*. This domain represents a changed set of priorities or goals and changed views about what one perceives to be important in life. Participants in previous studies have reported appreciating the “simple things” in life (Steel, Gamblin, & Carr, 2008; Tedeschi & Calhoun, 2004).

In addition to identifying the five domains of PTG described above, Calhoun and Tedeschi (1998) propose a comprehensive model describing the process towards PTG (Tedeschi & Calhoun, 2004), which is discussed below.

#### **2.4.3 Tedeschi and Calhoun’s (2004) model of PTG**

In order to consider and describe some of the components involved in the process of PTG, an illustration of the process is given in Figure 1 (Tedeschi & Calhoun, 2004).

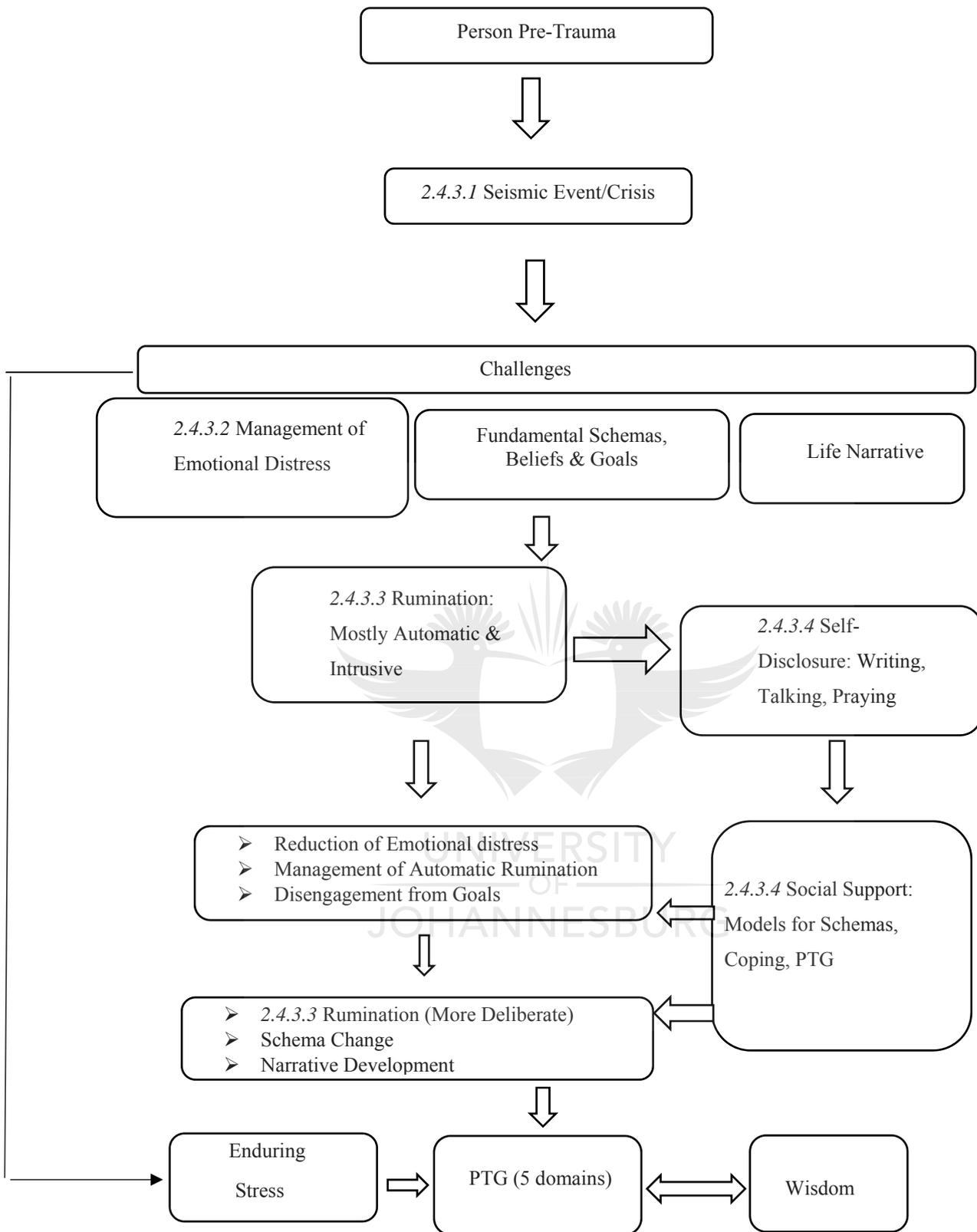


Figure 1. A model of PTG

#### **2.4.3.1 Seismic event**

Seismic events have an emotionally distressing impact, challenging an individual's schemas and core beliefs (Tedeschi & Calhoun, 2004). The specific trauma does not necessarily have to be of a large magnitude, but is challenging from the perspective of the victim. Although some models of PTG require stressful events to be "seismic" or severe enough in nature to challenge the basic components of the assumptive world (Calhoun & Tedeschi, 1998, 2006; Janoff-Bulman, 1992, 2006; Tedeschi & Calhoun, 2004), research indicates a positive relationship between perceived stressfulness and/or the emotional intensity of events and PTG (Bellizzi & Blank, 2006; Park, Cohen, & Murch, 1996). Essentially, events that are perceived as harmful are associated with growth (Linley & Joseph, 2004).

#### **2.4.3.2 Emotional distress, schemas and core beliefs**

As illustrated in Figure 1, ongoing emotional distress following trauma is needed for maximum growth to occur. Part of this growth is the challenge to core schemas and beliefs, which, in turn, allows for cognitive processing, producing schema changes necessary for PTG (Joseph & Linley, 2005; Taku & Oshio, 2015; Tedeschi & Calhoun, 2004.) The degree to which core beliefs are challenged have been shown to positively correlate with both intrusive and deliberate rumination (Triplett, Tedeschi, Cann, Calhoun, & Reeve, 2012).

#### **2.4.3.3 Rumination: automatic/intrusive to deliberate**

The degree to which an individual engages in ruminative/repetitive thinking about a traumatic event has a significant influence on PTG. More particularly, intrusive rumination will likely

result in more deliberate rumination (Janoff-Bulman, 1992), leading to acceptance of the new reality (Triplett et al., 2012).

Intrusive rumination is associated with negative, unwanted thoughts (Calhoun & Tedeshi, 2006; Michael & Snyder, 2005) and correlates with symptoms of depression and anxiety (Nolen-Hoeksema, Parker, & Larson, 1994). Deliberate rumination, in contrast, is characterised by purposeful, focused thoughts on facets related to the trauma-induced struggle (Calhoun & Tedeshi, 2006; Michael & Snyder, 2005), and positively correlates with PTG (Bower, Kemeny, Taylor, & Fahey, 1998; Linley & Joseph 2004; Tedeshi & Calhoun, 2004; Triplett et al., 2012).

Essentially, ruminative thinking includes direct attempts to make sense of what happened in the aftermath of trauma (Affleck & Tennen, 1996), which possibly leads to the finding of meaning/benefit, an improved life narrative and changes of core beliefs (Taku et al., 2008). Supporting the development of improved core beliefs is self-disclosure and the support of others (Calhoun, Cann, & Tedeschi, 2010).

#### **2.4.3.4 Self-disclosure, social support and narratives**

As illustrated in Figure 1, deliberate rumination develops self-disclosure, encourages social support and in turn develops into further rumination. Self-disclosure, which includes writing, talking or praying, give others the opportunity to be supportive (Calhoun, et al., 2010). These supportive individual provide a different perspective on the traumatic events experienced, which may be incorporated in the victim's new reality/schema change. Consequently, a new life narrative is developed (Tedeshci & Calhoun, 1996).

Research indicates that social support from friends positively correlates with PTG (Lev-Wiesel & Amir, 2003) and narratives or stories shared with supportive others about the event

not only contributes to MIL, but also results in more intimate relationships (Joseph & Linley, 2005; Tedeschi & Calhoun, 2004; Woo & Brown, 2013). Increased intimacy during emerging adulthood also support the development of PTG (Gottlieb et al., 2007).

#### **2.4.4 PTG during emerging adulthood**

Although trauma is prevalent in South Africa (King, 2014), it may be especially detrimental to development during emerging adulthood (Govender et al., 2012). For example, an emerging adult with a history of child sexual and physical abuse may be likely to engage in sexual risk behaviour (Messman-Moore et al., 2010; Senn & Carey, 2010; Walsh et al., 2013). Other adverse childhood experiences could lead to the abuse of alcohol and drugs (Senn & Carey, 2010), and repeated trauma exposure may lead to severe, chronic psychopathology (Finkelhor et al., 2009; Scott, 2007). However, it is noted that an international study by Dursun et al. (2014) indicates that the most prevalent traumas among emerging adults are loss of a loved one and natural disaster.

Yet despite the negative effects of trauma, the experience of growth is also prevalent. PTG seems to be more prevalent (Jirek, 2011) and higher among emerging adulthood than other life phases (Bower et al., 1998; Lechner et al., 2003). Moreover, throughout the process of PTG emerging adults tend to reflect qualities of self-reliance, coping, self-efficacy and resourcefulness, indicating confidence and the ability to independently overcome difficulties (Gottlieb et al., 2007).

### **2.4.5 Conclusion**

Although trauma with its negative consequences is an important and relevant concept in research, PTG and its processes have indicated positive effects among individuals affected by trauma. A construct associated with PTG and which potentially could have an influence on the levels of PTG during emerging adulthood, is MIL (Arpawong et al., 2016).

## **2.5. Meaning in Life**

In the following section, early conceptualisations of MIL will be reviewed, Steger's model will be introduced, and MIL during emerging adulthood will be explored.

### **2.5.1 Early Conceptualisations of MIL**

Victor Frankl is renowned for his valuable contribution towards developing a theoretical foundation for MIL, as well as suggesting implications for the absence of meaning (Zika & Chamberlain, 1992). The notion that the will to have a meaningful life is a primary motive of human behaviour originated from Frankl's observations and experiences in the Nazi concentration camps, and indicate that finding MIL is critical to survival (Frankl, 1959).

Frankl (1963) suggests three pathways towards realising meaning:

- realising the experience or attitude held in difficult circumstances or the aftermath of suffering,
- contributing to life by engaging in meaningful work, and
- experiencing the beauty of life through nature or intimate relationships.

Frankl asserts that impeding the search for meaning could result in existential frustration, which in turn could lead to a pathological condition called "noogenic neurosis" (existential

frustration) (Frankl, 1963). Subsequent writings by Maddi (1967) concur, in that from the suffering of existential neurosis, feelings of estrangement in relation to oneself and others could develop. Furthermore, Yalom (1980) suggests that the absence of meaning is strongly related to psychopathology. Yalom (1980) (as well as Haugan, 2013 and Steger, Frasier, Oishi, & Kaler, 2006) suggests that the presence of MIL, in contrast, generates faith, connection with others and uncompromising values and purpose.

There are different views of what comprises MIL. While Emmon's (2003) conceptualisation of MIL coincides with those of Frankl (1963) and includes achievement, relationship/intimacy, religion/spirituality and self-transcendence. Similar to Maddi (1976), Reker and Wong (1988) describe MIL in terms of three components: cognitive, motivational and affective. The cognitive component enables interpretation of life experiences while the motivational component guides behaviour and encourages pursuit of personal goals. At an affective level, personal meaning is accompanied by feeling satisfied and fulfilled about life. Baumeister and Vohs (2002), in contrast, identify purpose, values, sense of significance and self-worth as the relevant components. These are achievement, relationship/intimacy, religion/spirituality and self-transcendence.

From a different perspective, Rowels (2008) investigates MIL from an environmental context, beyond purpose and goal achievement. This author points out that when everything (job, goals, wealth, status) falls away, the reasons for living and what makes life meaningful still need to be determined.

In the PP literature, Steger et al.'s (2006) model of MIL has received much research attention. This conceptualisation will also serve as guide to the current study which investigates MIL during emerging adulthood. Steger et al. describe MIL in terms of two components, the presence (MIL-P) of meaning and the search for meaning (MIL-S).

## **2.5.2 Steger et al.'s (2006) Model of Meaning in Life**

### **2.5.2.1 The presence of meaning in life.**

Although both MI-P and MIL-S are essential to MIL in general, these components represent separate and distinctive dimensions (Linley & Joseph, 2011; Steger et al., 2006). MIL-P which is elaborated upon in this subsection, is the perception of the extent to which significance and purpose are experienced, or specific goals accomplished. MIL-P is most likely accompanied by a comprehension of the self and the world and one's place in the world (King et al., 2006; Steger et al., 2009).

MIL-P is a greatly desired psychological trait (Steger et al., 2008), partly because of its association with fewer depressive symptoms and less neuroticism (Steger et al., 2006; Steger et al., 2008). Not only is MIL-P associated with positive change (Linley & Joseph, 2011), but research also suggests that MIL-P positively predicts well-being (Brassai et al., 2011; Dezutter et al., 2014; Dogan, Sapmaz, Tel, Sapmaz, & Temizel, 2012; Schwartz, et al., 2011; Steger et al., 2008; Steger, et al., 2009).

Additionally, MIL-P has been found to moderate MIL-S (Cohen & Cairns, 2012) concerning feelings of happiness and depression. However, research is needed to determine whether MIL-P could develop during MIL-S (Linley & Joseph, 2011).

### **2.5.2.2 The search for meaning in life**

MIL-S is not equivalent to the absence of meaning, but rather a prerequisite for the presence of MIL (Steger et al., 2009). Indeed, MIL-S is an important component of MIL, since it also contributes towards life satisfaction (Steger, Oishi & Kesebir, 2011). MIL-S refers to the attempt to enhance the comprehension of personal meaning, significance and purpose in life

(Steger et al., 2008; Steger et al., 2008; Steger et al., 2009). Steger (2012) distinguishes between MIL and purpose, suggesting MIL to be a lifelong aspiration as supposed to goal achievement. In other words, MIL-S is not defined as a single action, but a process of developing meaning in life.

Although research is lacking concerning studies on MIL-S (Steger et al., 2009), it has been associated with greater depressive symptoms, higher neuroticism (Steger et al., 2006; Steger et al., 2008) and negative change (Linley & Joseph, 2011). The MIL-S has also been shown to negatively predict well-being (Brassai et al., 2011; Dezutter et al., 2014; Dogan, Sapmaz, Tel, Sapmaz, & Temizel, 2012; Schwartz, et al., 2011; Steger et al., 2008). As indicated above, a challenge to an individual's schemas is followed by rumination and MIL-S (Taku et al., 2008). It could be assumed that this search for meaning involves deliberating the changes of the assumptive world. These deliberations include aspects such as dreading the future, not coping, and fearing death (Linley & Joseph, 2011).

In other words, MIL-S represents the struggle involved in making sense of difficulties, before the presence of meaning/acceptance is established, hence the initial negative change associated with the search for meaning. Apart from being associated with well-being in general, MIL is particularly important during emerging adulthood.

### **2.5.3 MIL among Emerging Adults**

The presence of MIL seems to enhance psychological well-being among emerging adults (Steger et al., 2008; Steger et al., 2009). A study among Turkish university students indicated that MIL-P and MIL-S predict subjective well-being (Shahin, Aydin, Sari, Kaya, & Pala, 2012). In another study, German students who reported living meaningful lives had more

positive affect and life satisfaction than those indifferent about living a meaningful life (Schnell, 2010).

Additionally, Steger et al. (2009) state that the desire to develop an identity is central to emerging adulthood, and the exploration of MIL is an important component of identity development. A study on youth development confirmed that a positive identity and sense of meaning can counteract risk behaviour (Drapeau, Sant-Jacques, Lepine, Begin, & Bernard, 2007). This counteraction is especially important, considering that the absence of MIL during emerging adulthood could lead to depressive symptoms, anxiety, rule-breaking and aggressive behaviour (Steger et al., 2009; Woo & Brown, 2013). Steger et al. (2009) go on to suggest an expansion of present research on how college students develop a sense of purpose and meaning, since the findings could be applicable to emerging adults in the midst of adapting to a new environment (i.e. university).

#### **2.5.4 Conclusion**

Although scholars have conceptualised aspects of MIL since the 1990's, Steger et al.'s (2006) model of MIL is widely accepted in PP literature and comprises both MIL-P and MIL-S. More emphasis is usually placed on MIL-P, but the combination of both elements contributes towards adaptive psychological functioning, especially among emerging adults (Dezutter et al., 2014). Another positive construct, which seems to be associated with MIL and well-being among emerging adults, is hope (Yalcin & Malkoc, 2015). For example, high levels of hope predict purpose, life satisfaction (Bronk, Hill, Lapsley, Talib, & Finch, 2009), and hopeful coping responses in hardships (Irving, Snyder, & Crowson, 1998). Therefore hope is the third construct explored in the current study.

## 2.6 Hope

Hope is not only described as impossible to measure, but scholars examine hope from different perspectives and paradigms (Boyce & Harris, 2013), making it a different construct to research. In the following section early conceptualisations of hope are reviewed, followed by a definition of hope. Snyder's (2000) model of hope has been chosen as the framework in this study, and it is introduced here. Finally, hope among emerging adults is elaborated upon.

### 2.6.1 Early Conceptualisations of Hope

The construct hope was not always perceived as being positive. In the 15<sup>th</sup> and 16<sup>th</sup> centuries, hope was considered an illusion, lacking substance and seducing humanity towards a false promise. This cynical view is represented in Shakespeare's *The Rape of Lucrece*, where it is written, "And so by hoping more they have but lesse" (Snyder, 2000). With this line, Shakespeare expresses the futility of having hope.

Wanting to introduce a more positive view of hope, Tillich (1965) note that, "Hope is easy for the foolish, but hard for the wise. Everybody can lose himself in foolish hopes, but genuine hope is something rare and great". Although most of the medical community was uncertain and sceptic about the source of hope, some physicians (Menninger, 1959), psychiatrists (Frank, 1963; Melges & Bowlby, 1969; Menninger, 1959) and psychologists (Farber, 1968; Mowrer, 1960; Stotland, 1969) agreed that hope was based on positive expectations for goal attainment.

Later studies of hope included descriptions thereof in terms of cognitive and emotional components (Reichard, Avey, Lopez, & Dollwet, 2013). For example, Mowrer's (1960) animal research with rats resulted in the hypothesis that hope was the emotion rats

experienced when confronted with a pleasurable stimulus. Erikson (1964), however, argued that hope is rather a belief or a thought, encouraging goal attainment.

In subsequent writings, Breznitz (1986) argues for both the positive and negative attributes of hope, suggesting that although hope may be beneficial in overcoming difficulties in the midst of stressful circumstances, it can distract people, leading to avoidance. Yet a research among war prisoners, Godfrey (1987) concluded that the coping skills and techniques demonstrated pointed toward the positive facet of hope within helpless circumstances. Toward the 20<sup>th</sup> century, Averil et al. (1990) described hope as an emotion that is guided by cognition and influenced by the environment. These authors also point out that hope should be observed within a social and cultural context, and suspect that hope is an important factor in achieving socially and morally acceptable goals.

In summary, studies of hope developed from this construct being perceived as unimportant, to being a contributing factor of physical healing and having both emotional and cognitive components. The role of goal attainment in hope appears to be an important finding.

### **2.6.2 Defining Hope**

The colloquial definition of hope differs from academia's definition, in that people tend to view hope as a collective, abstract concept, influenced by communal and environmental factors. A popular notion is that hope is a "feeling that everything will turn out for the best" (Reichard et al., 2013). Academia, however, prefers the definition of hope to emphasise an individual's strength or capacity, underlining the fact that hope is not dependent upon external circumstances, but a personal internal disposition (Boyce & Harris, 2013). Although numerous scholars have researched hope for more than 20 years (Reichard et al., 2013), it is Snyder's (2000) hope theory that is widely researched and acknowledged in PP literature.

### **2.6.3 Snyder's (2002) Model of Hope**

Snyder (2000, p. 8) defines hope as "...the sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use those routes." Snyder's (2000, 2002) model of hope consists of three elements: goals, pathway thoughts and agency thoughts.

#### **2.6.3.1 Goals**

According to Snyder and Rand (2003) all human behaviour is guided by goals. Snyder (2000, p.25) believes that "Hoping is the mental bridging to goals dreamed now and attained in the future." These goals should be significant and accessible to the conscience mind, and also be moderately possible to attain (Averill, Catlin, & Chon, 1990).

#### **2.6.3.2 Pathway thoughts**

Pathway thoughts contribute to the ability to produce routes toward a specific goal. These routes are imperative for successful hopeful thought (Snyder, 2000). Pathways are referred to as the "way" power of goal attainment (Bronk et al., 2009), successful goal-directed planning (Snyder, 2000) and "maps" (Boyce & Harris, 2013). Snyder (2000) suggests that high hope levels enable individuals to think of multiple pathways, especially when faced with obstacles, whereas moderate levels of hope enable thinking of one pathway towards a goal.

### **2.6.3.3 Agency thoughts**

Agency thinking represents the motivational component of hope that initiates and sustains goal pursuit (Snyder, 2000). Agency is successful goal-directed determination (Snyder et al., 1991) or action (Boyce & Harris, 2013). Where pathways are termed, “way” power, agency is referred to as the “will” power of hope (Bronk et al., 2009).

### **2.6.4 Hope among Emerging Adults**

Hopeful individuals are better able to prepare for and interpret success and failure than individuals without hope (Snyder, 2002). Also, unsuccessful goal attainment, a central component of hope, is associated with lower well-being (Snyder, 2000). Since Snyder’s (2000) model of hope seems applicable in contexts such as school and work, emerging adults who abandon goals/hope could be at risk of lower well-being. In other words, without hope, emerging adults are more likely to abandon higher education, and give up on goals (Levine & Cureton, 1998).

Where adolescents are concerned, hope has been found to have psychological benefits, functioning as a barrier against stressful life events, increasing life satisfaction and decreasing problem behaviour (Valle, Huebner, & Suldo, 2006). Also, with higher levels of hope, adolescents perform better academically (Snyder et al., 1991). Hope has also been found to be a psychological strength in relation to optimism and emotional well-being (Lagacé-Séguin & d’Entremont, 2012).

Emerging adults, in comparison, need hope to dream about the future, since hope enables the setting of specific goals accompanied by the motivation (agency) and direction (pathways) to pursue these goals (Dalton & Crosby, 2009). Diminished hope may hinder emerging adults to

successfully transition to adulthood, which, as mentioned earlier, is a pivotal task during this life phase (Dalton & Crosby, 2009).

### **2.6.5 Conclusion**

According to Snyder's (2000) model, for hope to arise, goals need to be set. When pathways (plans) are established toward reaching goals, agency serves as the driving force to implementing these plans (Babyak, Snyder, & Yashinoba, 1993). Agency and pathways affect one another continuously as the goal process unfolds (Snyder, 2000). Hope influences emerging adults' goal setting (Levine, 1998) and therefore also goal/academic achievement. Since this study not only focusses on emerging adults, but also PTG, MIL and hope, the following section will consider the relationships between these constructs.

### **2.7 PTG, MIL and Hope**

The prevalence and negative effects following trauma (Williams et al., 2007) makes the research on and experience of PTG highly important. MIL and hope are associated with well-being (Dezutter et al., 2014; Snyder, 2000) and MIL is also involved in establishing PTG (Arpawong et al., 2016) and hope (Yalcin & Malkoc, 2015). By studying PTG, MIL and hope together and identifying the contributions of MIL and hope towards PTG, interventions to support and predictions of PTG could be put forward.

Currently however, there seems to be limited research focussing on the relationship between PTG, MIL and hope. Only one study by Ai, Casci, Santangelo, and Evans-Cambell (2005) examines the relationship between hope, spiritual meaning, mental health symptoms and

personal changes of growth in students after September 11, 2011. This study found that having hope and spiritual meaning has the potential to elicit growth from a traumatic event.

Another study focused on PTG and hope among parents of children with cancer, and reported that higher levels of hope lead to greater levels of PTG (Hullman, Fedele, Molzon, Mayes, & Mullins, 2014). Because hope is considered a facet of MIL (Feldman & Snyder, 2005), it is possible that MIL could also be responsible for the greater levels of PTG. It is evident that more research is needed on the relationship between PTG, MIL and hope.

### **2.7.1 PTG and MIL**

Several studies report a positive relationship between PTG and MIL, and observe that MIL predicts PTG (Dursun et al., 2014; Joseph & Linley, 2005; Kashdan & Kane, 2011). More specifically, both MIL-P and MIL-S are integral towards the development of PTG (Dursun et al., 2014). MIL is involved in the development of PTG, possibly because the struggle towards growth motivates the desire to find meaning (Hager, 1992; Joseph & Linley, 2005, 2008) through self-reflectivity (Nerken, 1993).

Some research suggests differences between MIL-P and MIL-S in relation to PTG. Such findings imply that only MIL-P and not MIL-S positively correlates with PTG (Linley & Joseph, 2011; Steger et al., 2008). Linley and Joseph (2011) suggest that MIL-S signifies the shattered assumptive world, which occurs as a result of trauma. In other words, MIL-S occurs before MIL-P and PTG are established, partially as a result of resolved cognitive processing. Similarly, Janoff-Bulman and Frantz (1997) found that although initially trauma survivors want to comprehend the traumatic event, finding significance in and through the event becomes more important. Finding significance assists the growth process in the form of

meaning. Again it is emphasised, that significance forms part of MIL-P and not necessarily MIL-S.

### **2.7.2 PTG and Hope**

To gain better understanding of PTG and its associated struggles, studies of different pathways towards PTG are necessary (Ai et al., 2007). Although few studies have examined the relationship between PTG and hope (Hullman et al., 2014), on the one hand research seems to indicate a positive relationship between PTG and hope, with higher levels of hope predicting higher levels of PTG (Ai et al., 2007; Baglama & Atak, 2014; Ho et al., 2011; Hullman et al., 2014; Yuen et al., 2014). Hope in association with other constructs has also indicated to predict PTG (Zhai, Huang, Gao, Jiang, & Xu, 2014). On the other hand, low-hope levels tend to be associated with negative rumination, hindering the process towards PTG (Snyder, 1999).

The element of hope that possibly contributes towards overcoming trauma and therefore contributing towards PTG is the determination to succeed (Ai et al., 2007). PTG is also increased by setting of and achieving future goals (Arpawong et al., 2016). Indeed, goal setting is an integral component of hope.

### **2.7.3 MIL and Hope**

Literature suggests possible associations between MIL and hope with some research considering hope a key factor in the meaning making process (Feldman & Snyder, 2005; Noble-Carr, Barker, McAthur, & Woodman, 2014). There seems to be a positive relationship between MIL and hope (Varahrami, Arnau, Rosen, & Mascaro, 2010) and MIL also

positively predicts hope (Dogra, Basu, & Das, 2011). Research on the interplay between these constructs are limited, but a few observations are noted below.

Firstly, Frankl (2008) suggests that a meaning making approach towards life supports the nourishment of hope through built up resilience. Secondly, Zika & Chamberlein (1992) state that MIL focuses on a purposeful existence and completion of goals. Concerning the role of goals in hope, the experience of MIL enables the ability to choose meaningful goals from sources such as achievement or relationships (Dogra et al., 2011).

MIL also assists in realising the implication of these goals. Lastly, hope, in terms of pathways and agency, is associated with MIL because MIL enables the capability to produce practical pathways towards set goals and motivates taking action (agency) towards sustainable achievement thereof (Dogra et al., 2011).

## **2.8 Concluding Summary**

Emerging adulthood is situated between adolescence and adulthood. During this time, spent by a number of emerging adults in university, this age group is faced with numerous challenges, such as possible trauma, financial difficulties and loss of a loved one. In examining the consequences of these challenges, traditional psychology will probably take the stance of searching for negative outcomes of these struggles.

PP, however, takes a different stance, and attempts to explore possible positive outcomes that enhance psychological functioning, such as PTG. PTG occurs when a heightened level of functioning can be determined from pre- to post-trauma. PTG is experienced in the form of relations to others, recognising new possibilities, realising personal strength, positive spiritual change and appreciation of life. Towards the development of PTG, MIL plays in integral part.

MIL is a contributor to positive functioning and is defined in terms of MIL-P and MIL-S.

MIL-P is the experience of significance and purpose in the present, while MIL-S could be the prerequisite for MIL-P. A positive construct often associated with MIL is hope, which is defined in terms of goals, pathway thoughts and agency thoughts. The presence of hope signifies the presence of goals accompanied by routes (pathway thoughts) leading toward these goals and the motivation (agency) to strive for their achievement.

These positive constructs, PTG, MIL and hope and are examined by this study, specifically among emerging adults in a South African context.



## **CHAPTER 3: RESEARCH METHOD**

### **3.1 Introduction**

In this chapter, the research aims are presented, followed by the research design. The sample and procedure for obtaining the sample are explained, followed by a review of the measurement instruments used. The statistical techniques that are used in the data analysis are presented and with the chapter concludes with an overview of the necessary ethical considerations.

### **3.2 Research Aim and Hypothesis**

This study was explorative, therefore its broad aim was to explore aspects of the relationship between PTG, MIL and hope among emerging adults. The specific aims were:

1. To examine the levels of PTG, MIL and hope among emerging adults.
2. To examine the relationship between PTG, MIL and hope among emerging adults.
3. To examine the MIL-P, MIL-S and hope as predictors of PTG.

### **3.3 Research Design**

This research study formed part of a larger research study related to hope and well-being. A quantitative, cross-sectional and correlational research design was implemented and measures of PTG, MIL-P, MIL-S and hope were collected by means of self-report questionnaires, in the form of an online survey (Maree & Pietersen, 2010).

### 3.4 Sampling

Although students from all ages were invited to complete the online survey, only students between the ages of 18 and 25 were included in the study. Since the study focussed on emerging adulthood (Arnett, 1998), purposive sampling was implemented to select participants fitting this criterion (Maclean & Wilson, 2011).

The final sample consisted of 166 participants of which 27.1% ( $n = 45$ ) were male and 72.9% ( $n = 121$ ) were female. The youngest participant was 18 and the oldest 25 ( $M = 20.6$ ;  $SD = 1.945$ ). Concerning ethnicity, 74 % ( $n = 124$ ) were Black, 13.9 % ( $n=23$ ) were White, 6.6 % ( $n = 11$ ) were Indian, 3 % ( $n = 5$ ) were Coloured, .6 % ( $n = 1$ ) were African and .6 % ( $n = 1$ ) preferred not to specify.

With regards to the participants' current situation, 89.2 % ( $n = 148$ ) were full-time students at the University of Johannesburg. Of the remaining 10.8 % ( $n = 18$ ), nine participants were full-time students at other tertiary institutes, eight participants worked full-time, and one was unemployed. Participants with incomplete data sets were eliminated from the sample and all participants included had experienced a traumatic event in past. Although participants could indicate multitude traumas experienced, the four most prevalent traumatic events were “financial hardship” ( $n = 91$ ), “loss of a loved one” ( $n = 90$ ), “failed one or more modules” ( $n=52$ ) and “loved one experiencing a chronic or acute illness” ( $n = 52$ ).

### 3.5 Sampling Procedure

Permission was obtained from both the University's Higher Degree Committee (HDC) and Faculty of Humanities Academics Ethics Committee to conduct the study. Various lecturers in departments from the Faculty of Humanities, FEFS, FADA, Engineering and Law were approached with the request to address students in order to introduce the study and explain its

objectives. At a time appropriate for lecturers, the researcher used five minutes of the lecture period to address the students, during which the study was introduced and objectives explained. Apart from university students, participation for this study was requested of various emerging adults via e-mail, Facebook and WhatsApp. The participants recruited from the university were required to access a survey via a link on the University student portal, ULink, posted by the relevant lecturer. Participants not enrolled in the university received a direct link to the survey emailed by the researcher.

The online survey contained various measures related to a broader research project. Only the measuring instruments specific to the current study will be reviewed. These include a section requiring biographical information, the Post Traumatic Growth Inventory (PTGI), the Meaning in Life Questionnaire (MLQ) and the Adult Hope Scale (AHS). The participants were required to complete the survey within an allocated time and were informed that participation was voluntary and confidential.

### **3.6 Measuring Instruments**

#### **3.6.1 Biographical Questionnaire**

The purpose of the biographical questionnaire was to obtain demographical information on the participants. Such information included gender, age, language, ethnicity and current situation. It also reported on the faculty in which students from the University of Johannesburg were enrolled, where students lived before coming to university and where they are living while studying at university. Lastly, the questionnaire reported on the participants' level of society.

## **3.6.2 The PTGI**

### **3.6.2.1 Rationale**

Various instruments have been developed in order to quantify the positive change that may occur as a result of trauma (Antoni et al., 2001; Joseph, Williams, & Yule, 1993; McMillen & Fischer, 1998). However, the PTGI is a measurement that is well-known and widely administered to quantify the experience of growth and positive change after trauma has been experienced (Cann et al., 2010; Tedeschi and Calhoun, 1996). Therefore, this study employed the PTGI in order to measure PTG.

### **3.6.2.2 Description and scoring**

This measurement consists of twenty one items, which measure perceived changes of self, a changed sense of relationship, and a changed philosophy of life. It also includes five subscales namely relating to others (seven items), new possibilities (five items), personal strength (four items), spiritual change (two items), and appreciation of life (three items). The items correspond with the three broader categories mentioned above (Tedeschi and Calhoun, 1996).

Participants' responses were rated on a six-point Likert scale ranging from 0: *I did not experience this change as a result of my crisis* to 5: *I experienced this change to a very great degree as a result of my crisis*. The total score was determined by adding all the responses. The mean of the items were an overall PTG score and scores greater than 3 signified positive change (PTG).

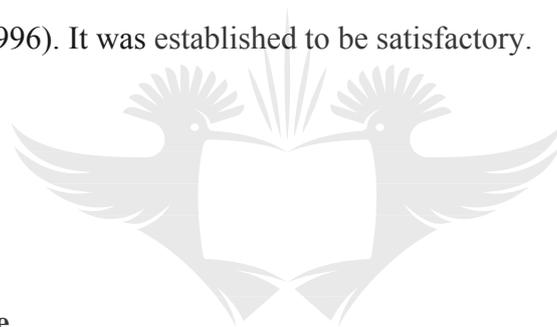
### **3.6.2.3 Reliability and validity**

The PTGI displayed good reliability and validity. In a study among undergraduate students, test-retest reliability was calculated over two months and found to be sufficient at  $r = .71$  and internal consistency was high ( $\alpha = .94$ ) (Tedeschi and Calhoun, 1996). A South African study that implemented the PTGI yielded a high internal consistency ( $\alpha = .90$ ) (Schmidt-Emcke, 2008). This current study yielded a preferable internal consistency ( $\alpha = .93$ ). Additionally, regarding validity, the concurrent, discriminate and construct validity of the PTGI was examined through assessments of the correlations between the PTGI, social desirability and personality variables, and by comparing severe and less severe trauma cases (Tedeschi & Calhoun, 1996). It was established to be satisfactory.

### **3.6.3 The MLQ**

#### **3.6.3.1 Rationale**

The measurement of meaning in life may be beneficial in promoting growth and recovery (Lent, 2004). Among well-known measurements of meaning, for example the Purpose in Life scale (PIL) (Crumbaugh & Maholick, 1969) and the Life Regard Index (LRI) (Debats, 1998), the MLQ has proven to be the leading measurement of meaning. This status could be attributed to the fact that the MLQ is a concise and accurate measurement and allows for MIL-P and MIL-S to be measured separately.



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### **3.6.3.2 Description and scoring**

The questionnaire consists of two subscales, MLQ-P and MLQ-S, each containing five items. The MLQ-P measures the perception of MIL-P, whereas the MLQ-S measures the motivation and effort to find meaning, or to understand MIL (Dursun et al., 2014).

Respondents were required to rate each item on a seven-point Likert scale, ranging from 1: *Absolutely untrue* to 7: *Absolutely true*. Scores above 24 on both subscales represented a life of value, meaning and purpose (Steger & Shin, 2010).

### **3.6.3.3 Reliability and validity**

Reliability in the form of internal consistency was sufficient for both the MLQ-P ( $\alpha = .86$ ) and MLQ-S ( $\alpha = .87$ ) subscales (Steger et al., 2006). Internal consistency represents the degree to which every test item measures the same construct (Revelle, 1979). Convergent and discriminant validity were also established (Steger & Shin, 2010). A South African study by Nell (2014) exploring the relationship between religious fundamentalism, life satisfaction and MIL, validated the MLQ's internal consistency - both MLQ-P ( $\alpha = .83$ ) and MLQ ( $\alpha = .87$ ) subscales. In this study MLQ-P ( $\alpha = .9$ ) and the MLQ-S ( $\alpha = .8$ ) produced very high internal consistencies. The internal consistency of the total MLQ scale was also sufficient ( $\alpha = .74$ ).

## **3.6.4 The AHS**

### **3.6.4.1 Rationale**

The chosen measurement for this study was the AHS. This scale was developed and recommended by Snyder (2002), to measure hope in accordance with hope theory.

#### **3.6.4.2 Description and scoring**

The AHS measures dispositional hope and consists of twelve items, which is rated on an eight-point Likert scale, ranging from 1: *definitely false* to 8: *definitely true*. Four items reflect the cognitive pathways towards goal attainment, four reflect agency (mental energy) for past, present and future goals and four items are fillers (not part of the total Hope scale) (Hellman, Pittman, & Munoz, 2013).

#### **3.6.4.3 Reliability and validity**

Reliability and validity were proven by sufficient internal consistency ( $\alpha = .74$  to  $.84$ ) and adequate construct validity (Snyder, 2002). In a study by Boyce and Harris (2013) on hope levels in South Africa, the AHS obtained a Cronbach Alpha of  $.84$  and responses also displayed high levels of internal consistency. In this study, the Agency ( $\alpha = .84$ ) and Pathways ( $\alpha = .82$ ) subscales, as well as the total Hope scale ( $\alpha = .89$ ), yielded sufficient internal consistencies.

### **3.7. Data Analysis**

The Statistical Package for the Social Sciences (SPSS) programme (Version 22) was utilised to capture and analyse data. Descriptive statistics as well as inferential statistics were calculated. Descriptive statistics were used to systematically arrange and summarize data to comprehend the data content. In order to draw conclusions from the sample data and generalise findings to the greater population, inferential statistics were used (Maree & Pieterse, 2010).

### **3.7.1 Descriptive Statistics**

Descriptive statistics provided information on the sample distribution concerning gender, age, language, race, current situation, faculty enrolled in, living situation and level of society.

Additionally, information on the mean, median, mode, standard deviation values were provided for the measuring instruments.

### **3.7.2 Inferential Statistics**

Inferential statistics consisted of correlation and multiple regression (Baron & Kenny, 1986).

Using a Pearson product moment correlation, correlation analyses was implemented to determine the correlations between PTG, MIL-P, MIL-S and hope. In other words, the study examined the relationship between these constructs.

Multiple regression is used to predict the value of an independent variable based on the value of two or more dependent variables (Heppner & Heppner, 2004). Multiple regression analysis by means of ANOVA was therefore employed to determine the variance in PTG, explained by each of the predictors, MIL-P, MIL-S and hope.

### **3.8 Ethical Considerations**

Ethical clearance for this study was granted by the Faculty of Humanities Ethics Committee.

Participation was voluntary and informed consent was given by the participants. Participants were informed that there would be no compensation for administering the questionnaire, but also no punishment for non-participation. Confidentially and anonymity of participants were ensured as no identifiable information was requested. Confidentiality of data was maintained throughout the study and no harm to students was anticipated. Support for psychological

assistance was offered for participants who experienced psychological distress after answering the questions.

### **3.9. Conclusion**

This chapter described the procedure followed to perform the study. The research aims were presented and the research design explained. A description of the sample and the manner in which the sample was obtained were elaborated upon and the measuring instruments that were used described. Statistical techniques, correlation and multiple regression were reviewed, and the relevant ethical considerations were taken into account. The next chapter will focus on the results of the statistical analysis.



## CHAPTER 4: RESULTS

### 4.1 Introduction

This chapter presents the results of the descriptive and inferential statistical analysis of the data gathered for this study. To address the research aims, the analysis reflects the levels of PTG, MIL-P, the MIL-S and hope among emerging adults. Furthermore, the relationships between PTG, MIL-P, MIL-S and hope among emerging adults are examined. Thereafter, to examine MIL-P, MIL-S and hope as predictors of PTG, a discussion of the variance explained in PTG by MIL-S, MIL-P and hope is presented. A measure of the relevant measurements' reliability indices is also included.

### 4.2 Descriptive Statistics

The first aim of the study was to examine the levels of PTG, MIL-P, MIL-S, and hope among emerging adults. The descriptive statistics comprising the number of participants, the means, standard deviations and the skewness and kurtosis coefficients which are displayed in Table 1.

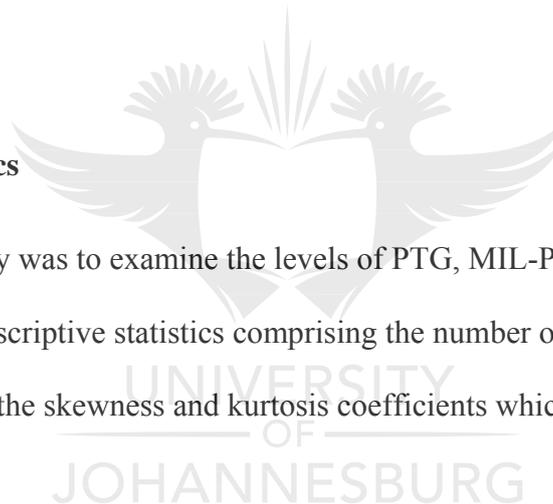


Table 1

*Descriptive statistics for all measures*

Scale	<i>N</i>	Mean	<i>SD</i>	Skewness	Kurtosis
PTGI-TOTAL	166	70.84	19.224	-.927	.586
MLQ-P	166	24.23	7.371	-.811	.141
MLQ-S	166	26.32	6.439	-.747	.340
AHS-TOTAL	166	48.21	10.066	-1.021	1.457

Abbreviations: PTGI = Post Traumatic Growth Inventory; MLQ-P = Presence of Meaning in Life Subscale; MLQ-S = Search for Meaning in Life Subscale; AHS-TOTAL = Total Adult Hope Scale

Skewness and kurtosis provide information about how the data is distributed. Skewness values indicate the symmetry of the distribution, while kurtosis gives an indication of the “peakedness” of the distribution (Pallant, 2010). A normal distribution of skewness and kurtosis values is 0 and +2 respectively (Heppner & Heppner, 2004). As illustrated by the kurtosis values indicated in Table 4.1, the data was normally distributed.

### 4.3. Reliability Indices

Internal consistency refers to the degree to which all items of an instrument measure the same construct. The Cronbach’s alpha coefficient ( $\alpha$ ) is usually used to indicate internal consistency, and a Cronbach alpha above .70 is ideal (Pallant, 2010). As indicated in Table 2, all measuring instruments implemented in this study had sufficient internal consistency, with Cronbach’s alpha coefficients above .70.

Table 2

*Reliability coefficients for all measures*

Scale	Number of Items	Cronbach Alpha
PTGI	21	.93
MLQ-P	5	.900
MLQ-S	5	.84
AHS-TOTAL	8	.89

Note: PTGI = Post Traumatic Growth Inventory; MLQ = Meaning in Life Questionnaire; MLQ-P = Presence of Meaning in Life; MLQ-S = Search for Meaning in Life; AHS-TOTAL = Adulthood Hope Scale.

#### 4.4 Inferential Statistics

##### 4.4.1 The Relationship between PTG, MIL and hope among Emerging Adults

The relationships between PTG, MIL-P, MIL-S and hope were examined using Pearson product moment correlation coefficients. If a positive correlation value occurs (r positive) between two variables, then when the value of the one variable increases, so does the value of the other variable. If a negative correlation value occurs (r negative) between variables, then when the value of the one variable increases, the value of the other variable decreases (Pallant, 2010). Pearson's product moment correlations are displayed in Table 3.

Table 3

*Correlation matrix for the PTG, MIL-P, MIL-S and Hope measures*

Measurement	PTGI -TOTAL	MLQ-P	MLQ-S	AHS -TOTAL
PTGI - TOTAL	1.00	-	-	-
MLQ-P	.560*	1.00	-	-
MLQ-S	.014	-.114	1.00	-
AHS -TOTAL	.534*	.674*	.047	1.00

Note: \*Correlations is significant at  $p \leq .01$  (2-tailed).

PTGI = Posttraumatic Growth Inventory; MLQ-P = Presence of Meaning in Life; MLQ-S = Search for Meaning in Life; AHS-TOTAL = Adulthood Hope Scale.

Examination of these correlations reveal that there were statistically significant positive relationships between PTG and MIL-P and PTG and hope, as well as between MIL-P and hope. Weak, insignificant positive correlations were found between PTG and MLQ-S and MLQ-S and hope. The only negative correlation was between MLQ-P and MLQ-S, but this correlation was not statistically significant.

#### **4.4.2 The MIL-P and MIL-S and Hope as Predictors of Post Traumatic Growth**

The third aim of this study was to examine the extent to which MIL-P, MIL-S and hope predicts PTG among emerging adults.

In order to examine the variance explained in the dependent variable (PTG), and the independent variables (MIL-P, MIL-S and hope), standard multiple regression analysis was implemented. Separate calculations were made between PTG and MIL-P, PTG and MIL-S and PTG and hope.

In order to use multiple regression, the data needs to adhere to certain assumptions. In addition, in order to generalise assumptions to the larger population, the sample size should be sufficient, using the following calculation,  $N > 50 + 8m$  ( $m$  = number of independent variables). This study had three independent variables; in other words, the sample size needed to be at least 74, therefore the sample  $N = 166$  was sufficient (Tabachnick & Fidell, 2007).

A good multiple regression model is possible when no multicollinearity and singularity exist. Multicollinearity occurs when the independent variables are highly correlated ( $r = .9$  and above) and singularity occurs when both subscale scores and the total score of a scale are included (Pallant, 2010). As demonstrated in Table 3 no correlations used in the multiple regression analyses had correlations of .9 and above, therefore no multicollinearity existed. The MIL subscales, not the full MIL were used, and the full Hope scale, not the hope subscales were used, thus ruling out singularity.

The coefficient of determination (R Squared) is then calculated in order to determine the sum of the variance explained in the dependant variable by the relevant independent variables (Pallant, 2010).

Table 4

*Multiple regression analysis examining the predictive effects of MIL-P, MIL-S and hope on PTG (b).*

Model	R	R Square	Adjusted R Square	Change statistics					
				R Square Change	F Change	Df1	Df2	Sig f change	F
1	.600a	.360*	.348	.360	30.411	3	162	.000	1.950

Note: \* Prediction is significant at  $p \leq .0005$

a. Predictors: Search for Meaning in Life (MIL-S), Presence of Meaning in Life (MIL-P) and hope

b. Dependant Variable: PTG

Examination of the multiple regression analyses indicated that MIL-P, MIL-S and hope together predict 36% of the variance explained in PTG. This prediction is statistically significant.

In order to determine which of the variables included in the model contributed the most towards the prediction of the dependant variable, the standardised coefficients were calculated. These results are presented in Table 5.

Table 5

*Coefficients to determine which model contributes the most towards the prediction of PTG*

Model	Unstandardised	Standardised			
	Coefficients	Std. Error	Beta	t	p
Constant	17.792	7.611		2.338	.021
MIL-P	.997	.228	.379*	4.373	.000
MIL-S	.134	.192	.045	.699	.486
AHS-	.527	.165	.276*	3.198	.002
TOTAL					

Note: \* Beta value is significant at  $p \leq .0005$

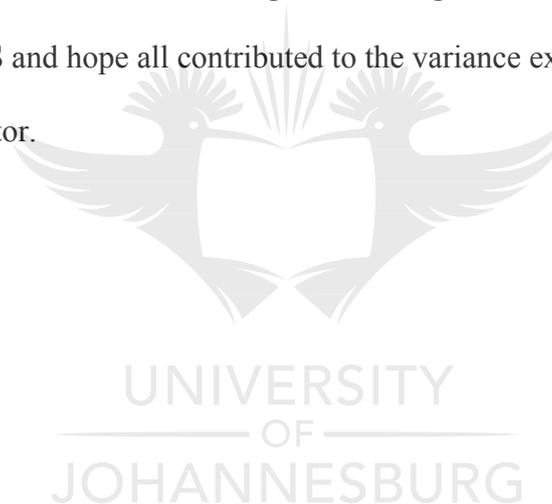
MLQ-P = Presence of Meaning in Life Subscale; MLQ-S = Search for Meaning in Life Subscale; AHS = Total Adulthood Hope Scale.

The results in Table 5 indicate that MIL-P made the strongest contribution (38%) towards PTG, when the variables, MIL-S and hope were controlled for. Hope made a smaller contribution (27%) towards PTG, but both the contributions by MIL-P and hope was

statically significant when MIL-P and MIL-S were controlled for. MIL-S made very little contribution towards PTG when MIL-P and hope were controlled for. The contributions by hope and MIL-S were not statistically significant.

#### **4.6. Conclusion**

The research aims of the study were satisfactorily addressed in the results of the descriptive and inferential statistics. Reliability indices indicated that all measuring instruments implemented in this study had sufficient internal consistency, with Cronbach's alpha coefficients of above .70. Both MIL-P and hope indicated positive relationships with PTG. Although MIL-P, MIL-S and hope all contributed to the variance explained in PTG, MIL-P was the strongest predictor.



## CHAPTER 5: DISCUSSION AND CONCLUSION

### 5.1. Introduction

This chapter elaborates on the statistical analysis implemented in this study in accordance with the three research aims: to examine the levels of PTG, the MIL-P and MIL-S and hope among emerging adults, to examine the relationships between PTG, MIL-P, MIL-S and hope among emerging adults and to examine the variance explained in PTG by MIL-P, MIL-S and hope respectively. The results of the statistical analyses are also considered in the context of previous research findings and theoretical perspectives. The chapter concludes with limitations of the study and recommendations for future research.

### 5.2. The levels of PTG, MIL-P, MIL-S and Hope among emerging adults

The first aim of the study was to examine the levels of PTG, MIL-P and MIL-S, and hope among emerging adults. This investigation was carried out by examining the mean scores of each scale.

#### 5.2.1 PTG

The maximum score for the full scale score of the PTGI is 105, thus the mean score of  $M = 70.84$  ( $SD = 19.224$ ) was relatively high. Therefore, most participants experienced high levels of PTG. As indicated above, trauma is a common phenomenon, especially in South Africa (King, 2014) and among emerging adults (Govender et al., 2012). The levels of PTG reported in this study are higher than those of emerging adults in Canada ( $M = 57.49$ ;  $SD = 20.83$ ) (Jirek, 2011), and Hong Kong ( $M = 41.28$ ;  $SD = 9.15$ ) (Yuen et al., 2014). This study possibly emphasises previous findings indicating the likelihood of growth from trauma

among emerging adults (Arpawong et al. 2016). Moreover, the high prevalence of PTG among South African emerging adults could be a result of the high exposure to traumatic events. The high levels of PTG could therefore function as a protective factor against negative outcomes of trauma, enhancing positive emotional functionality.

### 5.2.2 MIL-P and MIL-S

For both MLQ-P and MLQ-S, the maximum possible score is 35. The mean scores for MLQ-P ( $M = 24.32$ ;  $SD = 7.371$ ) and MLQ-S ( $M = 26.32$ ;  $SD = 6.439$ ) indicate that MIL-S among the participants was slightly higher than MIL-P.

Results from previous research seems to vary concerning the difference in level between MIL-P and MIL-S. An American study with a large sample of emerging adults yielded similar results to the current study, with lower MIL-P ( $M = 23.5$ ;  $SD = 8.1$ ) than MIL-S ( $M = 24.8$ ;  $SD = 8.2$ ) (Woo & Brown, 2013) scores. In contrast, another American study with 8 794 university students resulted in mean scores of MIL-P ( $M = 21.09$ ;  $SD = 5.09$ ) being somewhat higher than MIL-S ( $M = 19.95$ ;  $SD = 5.52$ ) (Woo & Brown, 2013). These findings were similar to a study among Turkish university students, which showed MIL-P ( $M = 29.39$ ;  $SD = 4.89$ ) to be higher than MIL-S ( $M = 19.98$ ;  $SD = 8.83$ ) (Yalcin & Malkoc, 2015). Thus, the levels of MIL-P and MIL-S among the emerging adults in the current study were similar to only some of those in the United States, but differ from emerging adults in Turkey, who indicated higher levels of MIL-P than MIL-S.

As indicated above, MIL-S represents the struggle involved in making sense of difficulties - before MIL-P is established (Linley & Joseph, 2011). Thus, the high MIL-S score from this study could be an indication that the participants are adequately engaged in striving to derive meaning from their own difficulties, as in the case of emerging adults in other countries.

Since MIL-S has shown to be an important in establishing PTG (Hager, 1992; Joseph & Linley, 2005, 2008), the high levels of PTG among these emerging adults could explain, but also require high levels of MIL-S.

### **5.2.3 Hope**

The maximum score on the AHS-TOTAL is 96 and the results of this study indicated a moderate score of  $M = 48.21$  ( $SD = 10.066$ ). Results from a study with 339 American college students indicated hope levels of  $M = 25.24$  ( $SD = 2.81$ ) (Snyder et al., 1991), suggesting that the participants in this study experienced higher levels of hope than their American counterparts. Emerging adults in Hong Kong indicated similar levels of hope to those presented in this study ( $M = 41.28$ ;  $SD = 13.45$ ) (Yuen et al. 2014).

A South African study among 3 272 adults yielded results on hope levels of  $M = 44.38$  ( $SD = 0.67$ ). From this sample, 537 participants were from Gauteng, of which the hope levels were  $M = 46.06$  ( $SD = 0.74$ ) (Boyce & Harris, 2013). Thus, it seems that the current study supports previous findings of high levels of hope in this province. A previous study among emerging adults in South Africa indicated that those who experienced hope in the form of having agency and being goal orientated indicated having supportive families, teachers and community members (Dass-Brailsford, 2005). It is possible that the high levels of hope in the present study could be influenced by factors similar to those of the above mentioned study.

### **5.3 The Relationship between PTG, MIL and Hope among Emerging Adults**

The second aim of the study was to examine the relationships between PTG, MIL-P, MIL-S and hope. These relationships were investigated by calculations of the Pearson product

moment correlation coefficients. The following sections report on statistically significant relationships and therefore positive correlations with  $p$  values  $\leq .05$ .

### **5.3.1 Post traumatic Growth and the Presence of Meaning in Life**

PTG and MIL-P revealed a high positive correlation (Pallant, 2010), and therefore a positive relationship with  $r = .560$ . These findings are similar to those of previous studies, which also reported a positive relationship between PTG and MIL (Dursun et al., 2014; Joseph & Linley, 2005; Kashdan & Kane, 2011). A possible explanation for the positive relationship and involvement of MIL in the development of PTG is that the struggle towards growth motivates the desire to find meaning (Hager, 1992; Joseph & Linley, 2005, 2008). Following a study among Turkish university students, Dursun et al. (2014) suggest that the meaning making process of both MIL-P and MIL are significant additional pathways to growth.

In accordance with previous literature on MIL and PTG (Linley & Joseph, 2011; Steger et al., 2008), this study does not demonstrate a significant positive relationship between PTG and MIL-S. Linley and Joseph (2011) propose that because the assumptive world is destroyed following trauma, it may be associated with MIL-S, and functions as a precursor for MIL-P and positive change. Similarly, the desire to find significance from trauma is associated with the MIL-P and not necessarily the MIL-S (Janoff-Bulman & Frantz, 1997). However, research is required to determine whether MIL-P could develop during MIL-S (Linley & Joseph, 2011).

Although the results indicate only slightly higher levels of MIL-S than MIL-P, it is possible that MIL-P could develop during the development of PTG, because of the positive correlation found between PTG and MIL-P. This positive correlation could also be owing to the fact that

because individuals who survive trauma have a need to restructure their global meaning system, through searching for and finding new MIL (Dursun et al., 2014).

Following his research among numerous emerging adults, Arnett (2004) discovered that one of the features distinguishing emerging adults from other life phases is the sense and belief in possibilities. According to his research, emerging adults claim to have higher hopes for their future than those of their parents. This optimism could possibly lead to them searching for meaning in life, supporting the current study's results of high levels of meaning as well as high levels of PTG and the high correlation between these constructs.

### **5.3.2 PTG and Hope**

A strong positive correlation was found between PTG and hope ( $r = .543$ ). This finding was expected, as previous studies indicated that an increase in levels of hope predict higher levels of PTG (Ai et al., 2007; Baglama & Atak, 2015; Ho et al., 2011; Hullman et al., 2014; Yuen et al., 2014). For instance, in a study among cancer survivors, of which most were in the emerging adult life phase, it was indicated that higher hope levels enable better psychological adjustment by focusing on positive cancer-related thoughts, which is associated with PTG (Yuen et al., 2014).

American studies among high-risk emerging adults (Arpawong et al., 2016) and emerging adults effected by the September 11 attacks (Ai et al., 2005) suggested that some elements of hope possibly contribute towards PTG. These elements include the setting and achieving of future goals and the determination to succeed. In contrast, low hope levels seems to be associated with negative rumination, which impedes the process towards PTG (Snyder, 1999).

This study's findings support and are in accordance with existing research regarding the positive relationship between PTG and hope. Thus, the development of PTG among the participants and possibly the larger population of emerging adults could enhance or enable the development of hope and vice versa.

### **5.3.3 The MIL-P and Hope**

MIL-P and hope revealed the largest positive correlation ( $r = .674$ ). This finding is similar to that of a previous study among 482 Turkish students, which reported a positive correlation between these constructs ( $r = .46$ ) (Yalcin & Malkoc, 2015). In another study among emerging adults in Kolkata, India, Dogra et al. (2011) found that MIL-P accounted for a significant amount of variance in hope. Dogra and his colleagues further suggest that MIL-P may help to enhance hope in emerging adults by enabling them to set appropriate goals and actively follow plans to meet these goals.

However, as with another previous study among emerging adults, it was not possible to determine which of the two constructs, MIL-P or hope occurs first (Bronk et al., 2009). The positive correlation between these constructs among the current study's participants could imply that the knowledge or security of experiencing meaning, motivates the setting and activation of goals.

#### **5.4. The MIL-P and MIL-S and Hope as Predictors of PTG**

The third aim of the study was to examine MIL-P, MIL-S and hope as predictors of PTG. The results indicated that the three constructs, MIL-P, MIL-S and hope, accounted for 36% of the variance in PTG, which was statistically significant.

MIL-P and hope both presented with prediction values of statistical significance. From a theoretical perspective, hope is considered a facet of MIL (Feldman & Snyder, 2005), therefore it seems possible that MIL could also be responsible for higher levels of PTG in other contexts. Regarding MIL-S, a study among Turkish students indicated both MIL-P and MIL-S to positively predict PTG (Dursun et al., 2014). However, in the current study, MIL-S made the smallest contribution towards PTG, and the contribution value was not statistically significant. As mentioned above, concerning the development towards PTG, research suggests that MIL-S is associated with negative rumination (Taku, Calhoun, Cann, & Tedeschi, 2008). This finding possibly explains the insignificant amount of the 4, 5 % variance explained by MIL-S towards PTG in the current study, since the development of PTG requires negative rumination to develop towards deliberate rumination, schema change and narrative development (Tedeschi & Calhoun, 2004).

Hope in the present study made a smaller contribution towards PTG than MIL-P, with hope accounting for 27,6 % and MIL-P accounting for 37,9 % of the variance. In the development of PTG, meaning is experienced, making it likely that MIL-P will to a large extent contribute towards this process (Taku et al., 2008). A previous study indicated hope to have a larger contribution towards PTG than the present study (Ho et al., 2011), but in another study, which examined the constructs resilience, optimism, hope and self-efficacy as predictors of PTG, it was found that resilience and not hope was the strongest determinant of PTG (Zhai et al., 2014). Yet another study examined the interactions between PTG, spiritual meaning and

hope among students impacted by the September 11 attacks (Ai et al., 2005). Results from this study indicated that hope and spiritual meaning could possibly support the development of PTG.

Owing to contrasting findings, it is evident that more research is needed on the relationship and interaction between PTG, MIL and hope, but as far as this study's results are concerned, both MIL-P and hope form an integral part towards the development of PTG.

## **5. Limitations of the Study**

Several limitations to this study should be acknowledged. Firstly, convenience sampling limits the generalisability of the findings, because most participants were from the Faculty of Humanities at the University of Johannesburg. Therefore, this sample may not be representative of all emerging adults (Dursun et al., 2014; Gottlieb et al., 2007). In addition, the majority of participants were females; male emerging adults were under represented.

Secondly, it is possible that the majority of participants which who were students enrolled in the faculty of Humanities are more exposed to the positive constructs explored in this study in their own courses. Therefore the probability for these constructs to be present in their lives could be higher than in students who did not have prior exposure, owing to their awareness of them.

Thirdly, the nature of correlation design and regression analysis implemented could not account for the variance explained in MIL and hope by PTG (King et al., 2006), and neither did the results account for one of the constructs to possibly mediate the relationships between the remaining constructs.

## **5.6 Recommendations**

### **5.6.1 Recommendations for Future Research**

Responding to the limitations listed above, further studies should endeavour to use larger samples to accurately represent emerging adults. This could be accomplished by including more participants from different faculties at a university, participants without tertiary education and recruiting more male participants.

As indicated above, the majority of participants were from the faculty of Humanities and more likely to be exposed by the constructs examined. Therefore, further studies could examine the relationships between the levels of PTG, MIL and hope among emerging adults and the presence, as well as the lack of previous knowledge concerning these constructs.

Because of the limited research focussing on the relationship between PTG, MIL and hope, as well as this study's results indicating that MIL-P and hope positively predict PTG, it might be beneficial for the development of emerging adults in South Africa to examine which factors of MIL and hope lead to this contribution. Future research could also focus on the possible mediation and moderation effects of MIL and hope on PTG. Concerning various traumas future studies could aim to compare the levels of PTG after the experience of specific traumas, in order to determine which traumas have the potential to elicit growth.

### **5.6.2 Recommendations for Practice**

Firstly, the knowledge gained from the above recommendations could be implemented to develop research based interventions towards establishing PTG after trauma. Secondly, psychologists need to be aware of the importance of MIL-P and hope in the development of PTG. Following the findings of the current study, focussing on a client's levels and sources of hope as well as MIL-P, could benefit trauma intervention and aid positive functioning.

## 5.7 Conclusion

In conclusion, the results of this study are in line with existing empirical evidence suggesting positive relationships between PTG, MIL-P and hope. Findings regarding the prediction values of MIL-P and hope along with further research may assist psychologists, educators and programme developers in better understanding the relationship between PTG, MIL-P, MIL-S and hope. Keeping the high prevalence of trauma among emerging adults in mind, the information gained from this study could offer direction towards the nature of intervention programmes to promote PTG, by focussing on MIL and hope.

In addition, the participants of this study, consisting of emerging adults, will probably develop into adulthood, potentially becoming parents, leaders and high influencers of the community. Since the presence of PTG has the potential for individuals to experience inner strength and value close relationships more (Tedeschi & Calhoun, 1996), emerging adults with these qualities will possibly raise healthier children. If these potential parents and leaders feel meaningful, it could result in having positive self-worth and being goal-directed and efficient (Steger et al., 2011), potentially influencing identity and work performance. Additionally, the experience of hope can possibly assist emerging adults in adjusting to difficult circumstances (Kleinberg, 2007) - an important quality in South Africa's trying times.

## References

- Affleck, G., & Tennen, H. (1996). Construing benefits from adversity: Adaptational significance and dispositional underpinning. *Journal of Personality, 64*, 899-922. doi:10.1111/j.1467-6494.1996.tb00948.x
- Ai, A. L., Cascio, T., Santangelo, L. K., & Evans-Campbell, T. (2005). Hope, meaning and growth following the September 11, 2001, terrorist attacks. *Journal of International Violence, 20*(5), 523-549. doi: 10.1177/0886260504272896
- Ai, A. L., Tice, T. N., Whitsett, D. D, Ishisake, T., & Chim, M. (2007). Posttraumatic symptoms and growth of Kosovar war refugees: The influence of hope and cognitive coping. *The Journal of Positive Psychology, 2*(1), 55-65. doi: 10.1080/17439760609341
- American Psychological Association. (2015). *Trauma*. Retrieved from <http://www.apa.org/topics/trauma/>
- Andrew, M., Eggerling-Boeck, J., Sandefur, G. D., & Smith, B. (2007). The “inner side” of the transition to adulthood: How young adults see the process of becoming an adult. *Advances in Life Course Research, 11*, 225-251. doi:10.1016/S1040-2608(06)11009-6
- Antoni, M. H., Lehman, J. M., Kilbourn, K. M., Boyers, A. E., Culver, J. L., Alferi, S. M., ..., & Carver, C. S. (2001). Cognitive-behavioural stress management intervention decreases the prevalence of depression and enhances benefit finding among women under treatment for early stage breast cancer. *Health Psychology, 20*(1), 20-32. doi: 10.1037//0278-6133.20.1.20
- Arpawong, T. E., Rohrbach, L. A., Milam, J. E., Unger, J. B., Land, H., Sun, P., ..., & Sussman, S. (2016). Stressful life events and predictors of posttraumatic growth

among high risk early emerging adults. *The Journal of Positive Psychology*, 11(1), 1-14. doi: <http://dx.doi.org/10.1080/17439760.2014.994223>

Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*, 41(5-6), 295-31. doi: 10.1159/000022591

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teen to the twenties, *American Psychologist*, 55(5), 469-480. Retrieved from <http://psycnet.apa.org/doi/10.1037/0003-066X.55.5.469>

Arnett, J. J. (2002). The psychology of globalization. *American Psychologist*, 57(10), 774-783. Retrieved from <http://psycnet.apa.org/doi/10.1037/0003-066X.57.10.774>

Arnett, J. J. (2004). *The winding road from the late teens through the twenties*. New York, NY: Oxford University Press.

Arnett, J. J. (2005). The developmental context of substance use in emerging adulthood. *Journal of Drug Issues*, 35, 235-254. Retrieved from <http://www2.criminology.fsu.edu/~jdi/>

Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives*, 1(2), 68-73. doi:10.1111/j.1750-8606.2007.00016.x

Arnett, J. J. (2014). Presidential address: The emergence of emerging adulthood: A personal History. *Emerging Adulthood*, 2(3), 155-162. Retrieved from <http://0-dx.doi.org.ujlink.uj.ac.za/10.1177/2167696814541096>

- Arnett, J. J., & Schwab J. (2012). *The Clark University poll of emerging adults: Thriving struggling and hopeful*. Retrieved from <https://www.clarku.edu/clark-poll-emerging-adults/pdfs/clark-university-poll-emerging-adults-findings.pdf>
- Aronson, P. (2008). The markers and meanings of growing up contemporary young women's transition from adolescence to adulthood. *Gender & Society*, 22(1), 56-82. doi: 10.1177/0891243207311420
- Averill, J. R., Catlin, G., & Chon, K. K. (1990). *Rules of hope*. New York, NY: Springer-Verlag.
- Baglama, B., & Atak, I. E. (2015). Posttraumatic growth and related factors among postoperative breast cancer patients. *Procedia – Social and Behavioural Sciences*, 190, 448-454. doi:10.1016/j.sbspro.2015.05.024
- Babiyak, M. A., Snyder, C. R., & Yashinoba, L. (1993). Psychometric properties of the hope scale: A confirmatory factor analysis. *Journal of Research in Personality*, 27, 154-159. doi: 10.1006/jrpe.1993.1011
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Baumeister, R. F., & Vohs, K. D. (2002). The pursuit of meaningfulness in life. In C. R. Snyder & S. Lopez (Eds.) *Handbook of positive psychology* (pp.608-618). New York, NY: Oxford University Press.
- Bellizzi, K. M, & Blank, T. O. (2006). Predicting posttraumatic growth in breast cancer Survivors. *Health Psychology*, 25(1), 47-56. doi: 10.1073/0278-6133.25.1.47

- Bower, J. E., Kemeny, M. E., Taylor, S. E., & Fahey, J. L. (1998). Cognitive processing, discovery of meaning, CD4 decline and AIDS-related mortality among bereaved HIV-seropositive men. *Journal of Consulting and Clinical Psychology, 66*(6), 979-986. doi: 10.1037/0022-006X.66.6.979
- Bowker, J. (1970). *Problems of suffering in religions of the world*. New York, NY: Cambridge University Press.
- Boyce, G., & Harris, G. (2013). Hope the beloved country: Hope levels in the new South Africa. *Social Indicators Research, 113*(1), 583-597. doi: 10.1007/s11205-012-0112-y
- Brassai, L., Piko, B. F., & Steger, M. F. (2011). Meaning in life: Is it a protective factor for Adolescents' psychological health? *International Journal of Behaviour Medicine, 18*, 44-51. doi:10.1007/s12529-010-9089-6
- Breznitz, S. (1986). The effect of hope on coping with stress. In M. H. Appley & R. Trumbull (Eds.), *Dynamics of Stress, physiological, psychological and social perspectives* (pp.295-306). New York, NY: Plenum Press.
- Braun, M. J., & Berg, D. H. (1994). Meaning reconstruction in the experience of parental bereavement. *Death Studies, 18*, 105-129. Retrieved from <http://0-dx.doi.org.ujlink.uj.ac.za/10.1080/07481189408252647>
- 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: Dedicated to Furthering Research and Promoting Good Practice, 4*(6), 500-510. doi:10.1080/17439760903271439
- Budgeon, S. (2003). *Choosing a self: Young women and the individualization of identity*. London, England: Praeger.

- Calhoun, L. G., & Tedeschi, R. G. (1998). Beyond recovery from trauma: Implications for clinical practice and research. *Journal of Social Issues, 54*(2), 357-371.  
doi:10.1111/j.1540-4560.1998.tb.01223.x
- Calhoun, L. G., & Tedeschi, R. G. (2006). The foundations of posttraumatic growth: An expanded framework. In L. G. Calhoun & R. G. Tedeschi (Eds.), *Handbook of posttraumatic growth* (pp.3-23). Mahwah, NJ: Lawrence Erlbaum Associates.
- Calhoun, L. G., & Tedeschi, R. G. (Eds.). (2014). *Handbook of posttraumatic growth, research and practice* (2<sup>nd</sup> edn.). New York, NY: Psychology Press.
- Caplan, G. (1964). *Principles of preventative psychiatry*. New York, NY: Basic Books.
- Cann, A., Calhoun, L. G., Tedeschi, R. G., Taku, K., Vishnevsky, T., Triplett, K. N., & Danhauer, C. (2010). A short form of the post traumatic growth inventory. *Anxiety, Stress and Coping, 23*(2), 127-137. Retrieved from <http://dx.doi.org/10.1080/10615800903094273>
- Cohen, S. Gottlieb, B. H., & Underwood, L. (2000). Social relationships and health. In S. Cohen, L. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and interventions: A guide for health and social scientists* (pp. 3- 28). New York: Oxford University Press.
- Collins, W. A., & Madsen, S. D. (2006). Personal relationships in adolescence and early adulthood. In D. Perlman, & A. Vangelisti (Eds.), *The Cambridge handbook of personal relationships* (pp. 191–209). New York, NY: Cambridge University Press
- Collins, W. A., & Sroufe L. A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman, B. B. Brown, & C. Feiring. (Eds.), *The development of romantic relationships in adolescents* (pp. 125-147). New York, NY: Cambridge University Press.

- Crumbaugh, J. C., & Maholick, L. T. (1969). *Manual of instructions for the purpose in life test*. Munster, IN: Psychometrics Affiliates.
- Dalton, J. C., & Crosby, P. C. (2009). Hoping in hard times: The transformative power of hope in college student development. *Journal of College and Character, 10*(3), 1-6. doi: 10.2202/1940-1639.1082
- Dass-Brailsford, P. (2005). Exploring resiliency: Academic achievement among disadvantaged black youth in South Africa. *South African Journal of Psychology, 35*(3), 574-591. doi: 10.1177/008124630503500311
- Debats, D. L. (1998). Measurement of personal meaning: The psychometric properties of the Life Regard Index. In P. T. P Wong & P. S Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 237-260). Mahwah, NJ: Laurence Erlbaum.
- Dezutter, J., Waterman, A. S., Schwartz, S. J., Luyckx, K., Beyers, W., Meca, A, ..., & Caraway, S. J. (2014). Meaning in life in emerging adulthood: A person-oriented approach. *Journal of Personality, 82*(1), 75-68. doi: 10.1111/jopy.12033
- Dogan, T., Sapmaz, F., Tel, F. D, Sapmaz, S., & Temizel, S. (2012). Meaning in life and subjective well-being among Turkish university students. *Procedia-Social and Behavioural Sciences, 55*, 612-617. Retrieved from <http://dx.doi.org/10.1016/j.sbspro.2012.09.543>
- Dogra, A. K., Basu, S., & Das, S. (2011). Impact of meaning in life and reasons for living to hope and suicidal ideation: A study among college students. *SIS Journal of Projective Psychology & Mental Health, 18*(1), 89-102. Retrieved from <http://0-web.a.ebscohost.com.ujlink.uj.ac.za/ehost/pdfviewer/pdfviewer?>

sid=ceb09933-374d-4a44-ad6297c6d4b6a784%40sessionmgr4002&vid=0&hid=4214

Dohrenwend, B. S. (1978). Social stress and community psychology. *American Journal of Community Psychology*, 6(1), 1-14. doi:10.1007/BF00890095

Douglass, C. B. (2007). From duty to desire: Emerging adulthood in Europe and its consequences. *Child Development Perspectives*, 1(2), 101-108. doi: 10.1111/j.1750-8606.2007.00023.x

Drapeau, S., Sant-Jacques, M., Lepine, R., Begin, G., & Bernard, M. (2007). Processes that contribute to resilience among youth in foster care. *Journal of Adolescence*, 30, 977-999. doi: <http://dx.doi.org/10.1016/j.adolescence.2007.01.005>

Dursun, P., Saracli, S., & Konuk, O. (2014). The roles of meaning in life and posttraumatic stress in posttraumatic growth in a sample of Turkish university students. *Procedia – Social and Behavioural Sciences*, 159, 720-726. doi: 10.1016/j.sbspro.2014.12.454

D’Zurilla, T. J., & Sheedy, C. F. (1991). Relation between social problem-solving ability and subsequent level of psychological stress in college students. *Journal of Personality and Social Psychology*, 61(5), 841-846. Retrieved from <http://web.a.ebscohost.com.ujlink.uj.ac.za/ehost/pdfviewer/pdfviewer?sid=740124b6-a45a-44b2-bb58-7365b550a8%40sessionmgr4005&vid=0&hid=4212>

Eaton, L., Flisher, A. J., & Aarø, L. E. (2003). Unsafe sexual behaviour in South African youth. *Social Science and Medicine*, 56(1), 149-165. Retrieved from [http://doi.org/10.1016/S0277-9536\(02\)00017-5](http://doi.org/10.1016/S0277-9536(02)00017-5)

Erikson, E. H. (1963). *Childhood and society* (Rev. edn.). New York, NY: Norton.

- Erikson, E. H. (1964) Inner and outer space: Reflections on womanhood, *The Women in America*, 93(2), 582-606. Retrieved from <http://www.jstor.org/stable/20026847>
- Farber, M. L. (1968). *Theory of suicide*. New York, NY: Funk & Wagnall's.
- Feldman, D. B., & Snyder, C. R. (2005). Hope and the meaningful life: Theoretical and empirical associations between goal-directed thinking and life meaning. *Journal of Social and Clinical Psychology*, 24(3), 401-421.
- Finkelhor, D., Ormond, R. K., & Turner, H. A. (2009). Lifetime assessment of poly-victimization in a national sample of children and youth. *Child Abuse and Neglect*, 33(7), 403–411. Retrieved from <http://0dx.doi.org.ujlink.uj.ac.za/10.1016/j.chiabu.2008.09.012>
- Fleming, J. S. (2004). *Erikson's psychosocial developmental stage*. Retrieved from <http://swppr.org/Textbook/Ch%209%20Erikson.pdf>
- Frankl, V. E. (1959). The spiritual dimensions in existential analysis and logotherapy. *Journal of Individual Psychology*, 15(2), 157.
- Frankl, V. E. (1963). *Man's search for meaning*. New York, NY: Pocket Books.
- Frankl, V. E. (2008). *Man's search for meaning: The classic tribute to hope from the Holocaust*. London, England: Random House Group.
- Fuligni, A. J. (2007). Family obligation, college enrolment, and emerging adulthood in Asian and Latin American families. *Child Development Perspectives*, 1(2), 96-100.  
doi: 10.1111/j.1750-8606.2007.00022.x
- Furstenberg, F. (2000). The sociology of adolescence and youth in the 1990s: A critical commentary. *Journal of Marriage and Family*, 62(4), 869–910.  
doi: 10.1111/j.1741-3737.2000.00896.x

- Gable, S.L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology, 9*, 103-110. Retrieved from <http://psycnet.apa.org/doi/10.1037/1089-2680.9.2.103>
- Galambos, N. L., Barker, E. T., & Krahn, H. J. (2006). Depression, self-esteem, and anger in emerging adulthood: Seven-year trajectories. *Developmental Psychology, 42*(2), 350-365. <http://dx.doi.org/10.1037/0012-1649.42.2.350>
- Godfrey, J. J. (1987). *A philosophy of human hope*. Dordrecht, The Netherlands: Martinus Nijhoff.
- Gottlieb, B. H., Still, E., & Newby-Clark, I. R. (2007). Types and precipitants of growth and decline in emerging adulthood, *Journal of Adolescent Research, 22*(2), 132-155. doi: 10.1177/0743558406298201
- Goldschneider, F., & Goldschneider, C. (1999). *The changing transition to adulthood: Leaving and returning home*. Thousand Oaks, CA: Sage Publications.
- Govender, I., Matzopoulos, R., Makanga, P., & Corrigan, J. (2012). Piloting a trauma surveillance tool for primary health care emergency centres. *South African Medical Journal, 102*(5), 303-306. Retrieved from <http://www.scielo.org.za/pdf/samj/v102n5/25.pdf>
- Gradisek, P. (2012). Character strength and life satisfaction of Slovenian in-service and pre-service teachers. *Centre of Educational Study Policies Journal, 2*(3), 167-180.
- Hager, D. (1992). Chaos and growth. *Psychotherapy, 29*(3), 378-384. Retrieved from <http://psycnet.apa.org/doi/10.1037/h0088539>
- Harvey, M. R. (2007). Towards an ecological understanding of resilience in trauma survivors: Implications for theory, research and practice. *Journal of Aggression, Maltreatment & Trauma, 14*(1), 10-17. doi: 10.1300/J146v14n01\_02

- Haugan, G. (2013). Meaning-in-life in nursing home patients: A valuable approach for enhancing psychological and physical well-being? *Journal of Clinical Nursing, 23*, 1830-1844. doi: 10.1111/jocn.12402
- Helgeson, V. A., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology, 74* (5), 797-816. Retrieved from <http://psycnet.apa.org/doi/10.1037/0022-006X.74.5.797>
- Hellman, C. M., Pittman, M. K., & Munoz, R. T. (2013). The first twenty years of the will and the ways: An examination of score reliability distribution on Snyder's dispositional hope scale. *Journal of Happiness Studies, 14*, 723-729. doi: 10.1007/s10902-012-9351-5
- Heppner, P. P., & Heppner, M. J. (2004). *Writing and Publishing Your Thesis, Dissertation, and Research: A Guide for Students in the Helping Professions*. Belmont, CA: Brooks Cole.
- Hirsch, J. K., & Ellis, J. B. (1996). Differences in life stress and reasons for living among college suicide ideators and non-ideators. *College Student Journal, 30*, 377-384. Retrieved from <http://0-web.b.ebscohost.com.ujlink.uj.ac.za/ehost/detail/detail?vid=3&sid=65f214af-dd01-4401-bcffadc13e5cff35%40sessionmgr110&hid=116&bdata=JnNpdGU9ZWwhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=1997-07633-008&db=psyh>
- Ho, S. M. A., Rajandram, R. K., Chan, N., Samman, N., McGrath, C., & Zwahlen, R. A. (2011). The roles of hope and optimism on posttraumatic growth in oral cavity cancer patients. *Oral Oncology, 47*(2), 121-124. <http://dx.doi.org/10.1016/j.oraloncology.2010.11.015>

- Hullmann, S. E., Fedele, D. A., Molzon, E. S., Mayes, S., & Mullins, L. L. (2014). Posttraumatic growth in parents of children with cancer. *Journal of Psychosocial Oncology*, 32, 696-707. doi: 10.1080/07347332.2014.955241
- Irving, L. M., Snyder, C., & Crowson Jr, J. J (1998). Hope and coping with cancer by college women. *Journal of Personality*, 66(2), 195-214. doi: 10.1111/1467-6494.00009
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: Free Press
- Janoff-Bullman, R. (2006). Schema-change perspective on posttraumatic growth. In L. G. Calhoun & R. G Tedeschi (Eds.), *Handbook of posttraumatic growth* (pp.3-23). Mahwah, NJ: Lawrence Erlbaum Associates.
- Janoff-Bulman, R., & Frantz, M. (1997). The impact of trauma on meaning: From meaningless world to meaningful life. In M. J. Power and C. R Brewin (Eds.), *The transformation of meaning in psychological therapies: Integrating theory and practice* (pp.91-106). Hoboken, NJ: John Wiley & Sons.
- Jayawickreme, E., Forgeard, M. J. C., & Seligman, M. E. P. (2012). The engine of well-being. *Review of General Psychology*, 16(4), 327-342. Retrieved from <http://0-dx.doi.org.ujlink.uj.ac.za/10.1037/a0027990>
- Jirek, S. L. (2011). *Post traumatic growth in the lives of young adult trauma survivors: Relationships with cumulative adversity, narrative reconstruction, and survivor missions* (Doctoral dissertation). The University of Michigan, Michigan, USA.
- Joseph, S., & Linley, P. A. (2005). Positive adjustment to threatening events: An organismic valuing theory of growth through adversity. *Review of General Psychology*, 9(3), 262-280. doi: 10.1037/1089-2680.9.3.262

- Joseph, S., & Linley, P. A. (2008). Positive psychological perspectives on posttraumatic stress: An integrative psychological framework. In S. Joseph and P. A. Linley (Eds.), *Trauma, recovery, and growth: Positive psychological perspective on posttraumatic stress* (pp. 3-20). Hoboken, NJ: Wiley.
- Joseph, S., Williams, R., & Yule, W. (1993). Changes in outlook following disaster: The preliminary development of a measure to assess positive and negative responses. *Journal of Traumatic Stress, 6*(2), 271-279. doi: 10.1002/jts.2490060209.
- Kampman, H., Hefferon, K., Wilson, M., & Beale, J. (2015). "I can do things now that people thought were impossible, actually, things I thought were impossible": A meta-synthesis of the qualitative findings on posttraumatic growth and severe physical injury. *Canadian Psychology, 56*(3), 283-294. doi: 10.1037/cap000031
- Kashdan, T. B., & Kane, J. Q. (2011). Post-traumatic stress and the presence of post-traumatic growth and meaning in life: Experiential avoidance as moderator. *Personality and Individual Differences, 50* (1), 84-89.  
<http://dx.doi.org/10.1016/j.paid.2010.08.028>
- Kleinberg, J. (2007). Restoring hope through post trauma groups. *Group Therapy, 31*(4), 239-308. <http://www.jstor.org/stable/41719167>
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation and representations of self and others. *Child Development, 59*, 135-146. doi: 10.2307/1130395
- King, K. (2014). *The rape capital of the world*. Retrieved from <http://www.news24.com/MyNews24/The-Rape-Capital-of-the-World-20140821>
- King, L. A., Hicks, J. A., Krull, J., & Del Gaiso, A. K. (2006). Positive effect and the experience of meaning in life. *Journal of Personality and Social Psychology, 90*, 179-196. Retrieved from <http://psycnet.apa.org/doi/10.1037/0022-3514.90.1.179>

- Kohn, J. P., & Frazer, G. H. (1986). An academic stress scale: Identification and rated importance of academic stressors. *Psychological Reports, 59*, 415-426. doi: 10.2466/pro.1986.59.2.415
- Lagacé-Séguin, D. G. & d'Entremont, M. L. (2012). A scientific exploration of positive psychology in adolescents: The role of hope as a buffer against the influences of psychosocial negativities. *International Journal of Adolescents and Youth, 16*(1), 69-95. doi: 10.1080/02673843.2010.9748046
- Larose, S., & Bernier, A. (2001). Social support processes: Mediators of attachment state of mind and adjustment in late adolescence. *Attachment and Human Development, 3*, 96-120. doi: 10.1080/14616730010024762
- Lechner, S. C., Zakowski, S. G., Antoni, M. H., Greenhawt, M., Block, K., & Block, P. (2003). Do socio-demographic and disease-related variables influence benefit finding in cancer patients? *Psycho-oncology, 12*, 491-499. doi: 10.1002/pon.671
- Lent, R. W. (2004). Toward a unifying theoretical and practical perspective on well-being and psychosocial adjustment. *Journal of Counselling Psychology, 51*(4), 482-509. Retrieved from <http://psycnet.apa.org/doi/10.1037/0022-0167.51.4.482>
- Levine, T., & Cureton, J. S. (1998). *When hope and fear collide: A portrait of today's college student*. San Francisco CA: Jossey Bass.
- Lev-Wiesel, R., & Amir, M. (2003). Posttraumatic growth among holocaust child survivors, *Journal of Loss and Trauma: International Perspectives on Loss and Coping, 8*(4), 229-237. doi: 10.1080/15325020305884
- Linley, P. A., & Joseph, S. (2011). Meaning in life and posttraumatic growth. *Journal of Loss and Trauma, 16*(2), 150-159. doi:10.1080/15325024.2010.519287
- Linley, P. A., Joseph, S., Harrington, S., & Wood, A. M. (2006). Positive psychology, past,

present and (possible) future. *The Journal of Positive Psychology: Dedicated to Furthering Research and Promoting Good Practice*, 1(1), 3-16.

doi: 10.1080/17439760500372796

Maclean, I. D., & Wilson, R. J. (2011). Recent ecological responses to climate change support predictions of high extinction risk. *Proceedings of National Academy of Sciences of the United States of America*, 108(30), 12337-12342. Retrieved from <http://www.pnas.org/content/108/30/12337.full.pdf>

MacPhail, C., & Cambell, C. (2000). 'I think condoms are good but, AAI, I hate those things': Condom use among adolescents and young people in a Southern African township. *Social Sciences and Medicine*, 52(11), 1613-1627. Retrieved from [http://doi.org/10.1016/S0277-9536\(00\)00272-0](http://doi.org/10.1016/S0277-9536(00)00272-0)

Maddi, S. R. (1967). The existential neurosis. *Journal of Religion and Health*, 21, 219-227.

Maree, K., & Pietersen, J. (2010). The quantitative research process. In K. Maree (Ed.) *First steps in research* (pp. 145-154). Hatfield, Pretoria: Van Schaik.

Masten, A., Coatsworth, J., Neemann, J., Gest, S., Tellegen, A., & Garmezy, N. (1995). The structure and coherence of competence from childhood through adolescence. *Child Development*, 66(6), 1635-1659. doi: 10.1111/j.1467-8624.1995.tb00956.x

Masten, A., Obradovic, J., & Burt, K. (2006). Resilience in emerging adulthood: Developmental perspectives on continuity and transformation. In J. Arnett & J. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21<sup>st</sup> century* (pp. 173-190). Washington, DC: American Psychological Association.

McLeod, S. A. (2013). *Erik Erikson*. Retrieved from [www.simplypsychology.org/Erik-Erikson.html](http://www.simplypsychology.org/Erik-Erikson.html)

- McMillen, J. C., & Fisher, R. H. (1998). The perceived benefit scales: Measuring perceived positive life changes after negative events. *Social Work Research, 22*(3), 173-187.  
doi: 10.1093/swr/22.3.173
- Melges, R., & Bowlby, J. (1969). Types of hopelessness in psychopathological processes. *Archives of General Psychiatry, 20*, 690-699.  
doi:10.1001/archpsyc.1969.01740180074007
- Menninger, K. (1959). The academic lecture on hope. *American Journal of Psychiatry, 116*, 481-491. Retrieved from <http://dx.doi.org/10.1176/ajp.116.6.481>
- Messman-Moore, T. L., Walsh, K. L., & DeLillo, D. (2010). Emotion dysregulation and risky sexual behaviour in revictimization. *Child Abuse and Neglect, 34*(12), 967-976.  
doi: 10.1016/j.chiabu. 2010.06.004
- Michael, S. T., & Snyder, C. R. (2005). Getting unstuck: The roles of hope, finding meaning, and rumination in the adjustment to bereavement among college students. *Death Studies, 29*(5), 435-458. doi: 10.1080/07481180590932544
- Mowrer, O. H. (1960). *The psychology of hope*. San Fransisco, CA: Jossey-Bass.
- Nell, W. (2014). Exploring the relationship between religious fundamentalism, life satisfaction, and meaning in life. *Journal of Psychology in Africa, 24*(2), 159-166. doi: 10.1080/14330237/2014.903074
- Nerken, I. R. (1993). Grief and the reflective self: Toward a clearer model of loss, resolution and growth. *Death Studies, 17*, 1-26. doi: 10.1080/07481189308252602
- Nishi, D., Matsuako, Y., & Kim, Y. (2010). Posttraumatic growth, posttraumatic stress disorder and resilience of motor accident vehicle survivors. *Biopsychosocial Medicine, 4*(7), 1-6. Retrieved from <http://www.biomedcentral.com/content/pdf/1751-0759-4-7.pdf>
- Noble-Carr, D., Barker, J., McArthur, M., & Woodman, E. (2014). Improving practice: The importance of connections in establishing positive identity and meaning in the lives of

vulnerable young people. *Children and Youth Services Review*, 47, 389-396.

<http://dx.doi.org/10.1016/j.childyouth.2014.10.017>

Nolen-Hoeksema, S., Parker, L. E., & Larson, J. (1994). Ruminative coping with depressed mood following loss. *Journal of Personality and Social Psychology*, 67(1), 92-104.

doi: 10.1037/0022-3514.67.1.92

O'Connor, M., Sanson, A., Hawkins, M.T., Letcher, P., Toumbourou, J.W., Smart, D., ..., & Olsson, C.A. (2011a). Predictors of positive development in emerging adulthood.

*Journal of Youth and Adolescence*, 40(7), 860-174. doi: 10.1007/s10964-010-9593-7

O'Connor, M., Sanson, A., Hawkins, M.T., Toumbourou, J.W., Letcher, P., & Frydenberg, E. (2011b). Differentiating three conceptualisations of the relationship between positive

development and psychopathology during the transition to adulthood. *Journal of Adolescence*, 34, 475-484. doi: 10.1016/j.adolescence.2010.06.005

Padilla-Walker, L. M., Barry, C. M., Carroll, J.S., Madsen, S., & Nelson, L.J. (2008). Looking on the bride side: The role of identity and gender on emerging adult's positive

orientations. *Journal of Adolescence*, 31, 451-467. doi: 10.1016/j.adolesce.2007.09.001

Pallant, J. (2010). SPSS survival manual. A step by step guide to data analysis using SPSS. (4<sup>th</sup> edn). New York, NY: Oxford University Press.

Park, C. L., Cohen, L., & Murch, R. (1996). Assessment and prediction of stress-related growth. *Journal of Personality*, 64, 71-105. doi: 10.1111/j.1467-6494.1996.tb00815.x

Peterson, C., Park, N., Pole, N., D'Andrea, W., & Seligman, M. E. P. (2008). Strengths of character and posttraumatic growth. *Journal of Traumatic Stress*, 21(2), 214-217.

doi: 10.1002/jts.20332

Peterson, C., & Seligman, M. E. P. (2004). *Character Strengths and Virtues: A Handbook and classification*. New York, NY: Oxford University Press.

- Reker, G. T., & Wong, P.T. (1988). Aging as an individual process: Toward a theory of personal meaning. In J. E. Birren, & V. L. Bengston (Eds.), *Emergent Theories of Aging*, (pp. 214-246). New York, NY: Springer.
- Reichard, R. J, Avey, J. B, Lopez, S., & Dollwet, M. (2013). Having the will and finding the way: A review and meta-analysis of hope at work. *The Journal of Positive Psychology*, 8(4), 292-304. doi: 10.1080/17439760.2013.80090
- Revelle, W. (1979). Hierarchical cluster analysis and the internal structure of tests. *Multivariate Behavioural Research*, 14(1), 57-74. Retrieved from [http://dx.doi.org/10.1207/s15327906mbr1401\\_4](http://dx.doi.org/10.1207/s15327906mbr1401_4)
- Rodriguez-Srednicki, O. (2002). Childhood sexual abuse, dissociation, and adult self-destructive behaviour. *Journal of Child Sexual Abuse*, 10(3), 75-89. doi: 10.1033/J070V10n03\_0
- Roisman, G. I, Masten, A. S, Coatsworth, J. D, & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development*, 75, 123-133. doi: 10.1111/j.1467-8624.2004.00658.x
- Ross, E., Bradley, N. C., & Heckert, T. M. (1999). Sources of stress among college students. *College Student Journal*, 33(2), 312-317. Retrieved from <http://www.rose-hulman.edu/StudentAffairs/ra/files/CLSK/PDF/Section%20Two%20Instructor%20Resources/Sources%20of%20Stress%20Among%20College%20Students.pdf>
- Rowels, G. D. (2008). Place in occupational science: A life course perspective on the role of environmental context in the quest for meaning. *Journal of Occupational Science*, 15(3), 127-135. doi: 10.1080/14427591.2008.9686622
- Rusk, R. D., & Waters, L. (2015). A psycho-social system approach to well-being: Empirically deriving the five domains of positive functioning. *The Journal of Positive Psychology*, 10(2), 141-152. Retrieved from

<http://dx.doi.org/10.1080/17439760.2014.920409>

- Scheer, S. D., Unger, D. G., & Brown, M. B. (1996). Adolescents becoming adults: Attributes for adulthood. *Adolescence*, 31, 127-131. Retrieved from <http://search.proquest.com/openview/852e402ddac9e7a02600335fc84ee9f8/1?pq-origsite=gscholar>
- Schnell, T. (2010). Existential indifference: Another quality of meaning in life. *Journal of Humanistic Psychology*, 50(3), 351–373. doi: 10.1177/0022167809360259
- Schroevers, M. J., & Teo, I. (2008). The report of posttraumatic growth in Malaysian cancer patients: Relationship with psychological distress and coping strategies. *Psycho-oncology*, 17, 1239-1246. doi: 10.1002/pon.1366
- Schulenberg, J. E., Bryant, A., & O'Malley, P. M. (2004). Taking hold of some kind of life: How developmental tasks relate to trajectories of well-being during the transition to adulthood. *Development and Psychopathology*, 16, 1119-1140. Retrieved from <http://dx.doi.org/10.1017/S0954579404040167>
- Schulenberg, J. E., Maggs, J. L., & O'Malley, P. M. (2003). How and why the understanding of developmental continuity and discontinuity is important: The sample case of long-term consequences of adolescent substance use. In Mortimer, J.T., & Shanahan, M.J. (Eds.), *Handbook of the life course* (pp.413-436). New York, NY: Springer.
- Scott, S. T. (2007). Multiple traumatic experiences and the development of posttraumatic stress disorder. *Journal of International Violence*, 22(7), 932-938.  
doi: 10.1177/0886260507301226
- Schmidt-Ehmcke, A. (2008). *The relationship between posttraumatic growth and resilience in the South African context* (Master's thesis). The University of Johannesburg, Johannesburg, South Africa.

- Schnell, T. (2010). Existential indifference: Another quality of meaning in life. *Journal of Humanistic Psychology, 50*(3), 351-373. doi: 10.1177/0022167809360259
- Schulenburg, J. E., & Zarett, N. R. (2006). Mental health during emerging adulthood: Continuity and discontinuity in courses, causes and functions. In J.J. Arnett and J. A Tanner (Eds.), *Emerging adults in America: Coming of age in the 21<sup>st</sup> century* (pp. 135-172). Washington, DC: APA Books.
- Schwartz, S. J., Beyers, W., Luyckx, K., Soenens, B., Zamboanga, B. L., Forthun, L. F., ..., & Waterman, A. S. (2011). Examining the light and darks sides of emerging adults' identity: A study of identity status differences in positive and negative psychological functioning. *Journal of Youth and Adolescence, 40*(7), 839-859.  
doi: 10.1007/s10964-0109606-6
- Schwartz, S. J., Hardy, S. A., Zamboanga, B. L., Meca, A., Waterman, A. S., Picariello, S., ... & Forthun, L. F. (2015). Identity in young adulthood: Links with mental health and risky behavior. *Journal of Applied Developmental Psychology, 36*, 39-52.  
doi:1016/j.appdev.2014.10.001
- 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, NY: Oxford University Press.
- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Simon & Schuster.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5-14. doi: 10.1037//0003-006x.55.1.5
- Senn, T. E., & Carey, M. P. (2010). Child maltreatment and women's adult child sexual behaviour: Childhood sexual abuse as a unique risk factor. *Child Maltreatment, 15*(4), 324-335. doi: 10.1177/1077559510381112

Sgan-Cohen, H. D., & Lowental, U. (1988). Sources of stress among Israeli dental students.

*The Journal of the American College Health Association*, 36, 317-321.

doi:10.1080/07448481.1988.9939027

Shahin, M., Aydin, B., Sari, S. V., Kaya, S., & Pala, H. (2012). O` znel iyi olus,u

ac,iklamada umut ve yas,amda anlamin rolu` [The role of hope and the meaning in

life in explaining subjective well-being]. *Kastamonu Education Journal*, 20(3), 827–

836.

Shanahan, M. J. (2000). Pathways to adulthood in changing societies: Variability and

mechanisms in life course perspective. *Annual Review of Sociology*, 26, 667-692.

<http://www.jstor.org/stable/223461>

Siegel, K., Schrimshaw, E. W., & Pretter, S. (2005). Stress-related growth among women

living with HIV/AIDS: Examination of an explanatory model. *Journal of Behavioural*

*Medicine*, 28(5), 403-414. doi:10.1007/s10865-005-9015-6

Slutske, W. S., Hunt-Carter, E. E., Nabors-Oberg, R. E., Sher, K. J., Bucholz, K. K.,

Madden, P. A., ... & Heath, A. C. (2004). Do college students drink more than

their non-college-attending peers? Evidence from a population-based

longitudinal female twin study. *Journal of Abnormal Psychology*, 113(4), 530-540.

Retrieved from <http://dx.doi.org/10.1037/0021-843x.113.4.530>

Smart, D., & Sanson, A. (2005). What is life like for young Australians today, and how well

are they faring? *Family Matters*, 70, 46-53.

Smith, D. C., Bahar, O. S., Cleeland, L. R., & Davis, J. P. (2014). Self-perceived emerging

adult status and substance use. *Psychology of Addictive Behaviours*, 28(3), 935-941.

doi: 10.1037/a0035900

- Snyder, C. R. (1999). Hope, goal-blocking thoughts, and test-related anxieties. *Psychological Reports*, 84(1), 206-208. doi: 10.2466/pr0.1999.84.1.206
- Snyder, C. R. (2000). Hypothesis: There is hope. In C.R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications* (pp.3-21). San Diego, CA: Academic Press.
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13(4), 249-275. doi:10.1207/S15327965PLI1304\_01
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., ..., & Harney, P. (1991). The will and ways: Development and validation of an individual-differences measure of hope, *Journal of Personality and Social Psychology*, 60(4), 570-585.
- Snyder, C. R., & Rand, K. L. (2003). The case against false hope. *American Psychologist*, 58(1), 820-822. Retrieved from <http://psycnet.apa.org/doi/10.1037/0003-066X.58.10.820>
- Steel, J. L., Gamblin, T. C., & Carr, B. I. (2008). Measuring posttraumatic growth in people Diagnosed with hepatobiliary cancer: directions for future use. *Oncology Nursing Forum*, 35(4), 634-650. doi: 10.1188/08.ONF.643-650
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counselling Psychology*, 53(1), 80-93. doi: 10.1037/0022-0167.53.1.80
- Steger, M. F., Mann, J. R., Michels, P., & Cooper, T. C. (2009). Meaning in life, anxiety, depression, and general health among smoking cessation patients. *Journal of Psychosomatic Research*, 67(4), 353-358.  
<http://dx.doi.org/10.1016/j.jpsychores.2009.02.006>

- Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style and the dynamics between searching and experiencing meaning. *Journal of Personality, 76*, 199-228.  
doi: 10.1111/j.1467-6494.2007.00484.x
- Steger, M. F., Kawabata, Y., Shimai, S., & Otake, K., (2008). The meaningful life in Japan and the United States: Levels and correlates of meaning in life. *Journal of Research Personality, 42*, 660-678. Retrieved from <http://dx.doi.org/10.1016/j.jrp.2007.09.003>
- Steger, M. F., Oishi, S., & Kesebir, S. (2011). Is a life without meaning satisfying? The moderating role of the search for meaning in satisfaction with life judgements. *Journal of Positive Psychology, 59*, 1-34. doi:10.1080/17439760.2011.569171
- Steger, M. F., & Shin, J. Y. (2010). The relevance of the meaning in life questionnaire to therapeutic practice: A look at the initial evidence. *The International Forum of Logotherapy, 33*, 95-104.
- Stotland, E. (1969). *The psychology of hope*. San Francisco, CA: Jossey-Bass.
- Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics* (5<sup>th</sup> edn). Boston, MA: Pearson Education.
- Taku, K., Calhoun, L. G., Cann, A., & Tedeschi, R. G. (2008). The role of rumination in the Coexistence of posttraumatic growth among bereaved Japanese university students. *Anxiety, Stress and Coping, 32*(5), 428-444. doi: 10.1080/0748118081974745
- Taku, K., Calhoun, L. G., Tedeschi, R. G., Gil-Rivas, W., Kilmer, R. P., & Cann, A. (2007). Examining posttraumatic growth among Japanese university students, *Anxiety, Stress and Coping, 20* (4), 353-367. doi: 10.1080/10615800701295007
- Taku, K. & Oshio, A. (2015). An item-level analyses of the Posttraumatic Growth Inventory:

Relationship with an examination of core beliefs and deliberate rumination.

*Personality and Individual Difference*, 86, 156-160. doi: 10.1016/j.paid.2015.06.025

Taylor, Z. E., Doane, L. D., & Eisenberg, N. (2014). Transitioning from high-school to college: Relations and social support, ego-resiliency, maladjustment during emerging adulthood, *Emerging Adulthood*, 2(2), 105-115. Retrieved from <http://0-dx.doi.org.ujlink.uj.ac.za/10.1177/2167696813506885>

Tedeschi, R. G., & Calhoun, L. G. (1995). *Trauma and transformation: Growing in the Aftermath of Suffering*. Thousand Oaks, CA: SAGE.

Tedeschi, R.G., & Calhoun, L.G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455-471. doi: 10.1007/BF02103658

Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1-18. Retrieved from [http://0-dx.doi.org.ujlink.uj.ac.za/10.1207/s15327965pli1501\\_01](http://0-dx.doi.org.ujlink.uj.ac.za/10.1207/s15327965pli1501_01)

Tillich, P. (1965). The right to hope. *The University of Chicago Magazine*, 58, 16-22.

Tolin, D. F., & Foa, E. B. (2008). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research, *Psychological Trauma: Theory, Research, Practice and Policy*, 5(1), 37-85. doi:10.1037/1942-9681.S.1.37

Towbes, L.C., & Cohen, L. H. (1996). Chronic stress in the lives of college students: Scale development and prospective prediction of distress. *Journal of Youth and Adolescence*, 25, 199-217. doi: 10.1007/BF01537344

Triplett, K. N., Tedeschi, R. G., Cann, A., Calhoun, L.G., & Reeve, C.L. (2012). Post-traumatic growth, meaning in life, and life satisfaction in response to trauma. *Psychological*

*Trauma: Theory, Research, Practice, and Policy*, 4(4), 400-410.

doi: 10.1037/a0024204

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.

<http://dx.doi.org/10.1016/j.jsp.2006.03.005>

Varahrami, A., Arnau, R. C., Rosen, D. H., & Mascaro, N. (2010). The relationship between meaning, hope and psychosocial development. *International Journal of Existential Psychology and Psychotherapy*, 3(1), 1-13.

<http://existentialpsychology.org/journal/index.php?journal=ExPsy&page=article&op=viewArticle&path%5B%5D=136&path%5B%5D=83>

Walsh, K., Latzman, N. E., & Latzman, R. D. (2013). Pathway from child sexual and physical abuse to risky sex among emerging adults: The role of trauma-related intrusions and alcohol problems. *Journal of Adolescent Health*, 54(4), 442-448.

doi:10.106/j.jadohealth.2013.09.020

Walsh, W. B. (2012). *Counselling psychology and optimal human functioning*, New York, NY: Routledge.

Wehmeyer, N. (2010). *Bereaved adolescent's experience of posttraumatic growth: An exploratory study* (Master's thesis). University of Johannesburg, Johannesburg, South Africa.

Weiner, I. B. (1998). *Posttraumatic growth: Positive changes in the aftermath of crises*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Weinrib, A. Z., Rothrock, N. E., Johnsen, E. L., & Lutgendorf, S. K. (2006). The assessment and validity of stress-related growth in a community-based sample.

*Journal of Consulting and Clinical Psychology*, 74(5), 851-858. Retrieved from

<http://psycnet.apa.org/doi/10.1037/0022-006X.74.5.851>

- Williams, S. L., Williams, D. R., Stein, D. J., Seedat, S., Jackson, P. B., & Moomal, H. (2007). Multiple traumatic events and psychological distress: The South Africa stress and health study. *Journal of Traumatic Stress, 20*(5), 845-855.  
doi: 10.1002/jts.20252
- Wilson, H. W., & Widom, C. S. (2008). An examination of risky sexual behavior and HIV in victims of child abuse and neglect: A 30-year follow-up. *Health Psychology, 27*(2), 149-158. Retrieved from <http://dx.doi.org/10.1037/0278-6133.27.2.149>
- Woo, C. R. S., & Brown, E. J. (2013). Role of meaning in the prediction of depressive symptoms among trauma-exposed and nontrauma-exposed emerging adult. *Journal of Clinical Psychology, 69*(12), 1269-1283. doi: 10.1002/jclp.22002
- Wusik, M. F., Smith, A. J., Jones, R. T., & Hughes, M. (2015). Dynamics among posttraumatic stress symptoms, forgiveness for the perpetrator, and posttraumatic growth following collective trauma. *Journal of Community Psychology, 43*(4), 389-394. doi: 10.1002/jcop.21686
- Yalcin, I., & Malkoc, A. (2015). The relationship between meaning in life and subjective well-being: Forgiveness and hope as mediators. *Journal of Happiness Studies, 16*, 915-929. doi: 10.1007/s10902-014-9540-5
- Yalom, I. D. (1980). *Existential psychotherapy*. New York, NY: Basic Books.
- Yuen, A. N. Y., Ho, S. M. A., & Chan, C. K. Y. (2014). The mediating roles of cancer related rumination in the relationship between dispositional hope and psychological outcome among childhood cancer survivors. *Psycho-Oncology, 23*, 412-419.  
doi: 10.1002/pon.3433

Zhai, J., Huang, Y., Gao, X., Jiang, H., & Xu, J. (2013). Post-trauma growth in a mainland Chinese population with chronic skin disease. *International Journal of Dermatology*, 53(4), 450-457. doi: 10.1111/j.1365-4632.2012.05734.x

Zika, S., & Chamberlain, K. (1992). On the relation between meaning in life and psychological well-being. *British Journal of Psychology*, 83(1), 133-145. doi:10.1111/j.2044-8295.1992.tb02429.x

Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology – a critical review and introduction of a two component model. *Clinical Psychology Review*, 26(5), 626-653. doi: 10.1016/j.cpr.2006.01.008

