Master of Arts Organisational Psychology, University of the Witwatersrand

Psychological Well-Being and South African Socio-Economic Stressors: The moderating role of Leaders creating Hope.

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PLAGIARISM DECLARATION

I, Savannah Aysen, declare that this research report is my own, unaided work (Ethics clearance number: MAORG/23/01). It is submitted for the degree of Master of Arts by Coursework and Research Report in Organisational Psychology at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree of examination at this or any other university.

Signed: 

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ABSTRACT

The current research study explored whether leaders creating hope in their employees moderates the relationship between South African socio-economic stressors and employee psychological well-being. Existing literature indicates that stressors have dire implications for the well-being of employees and that psychological capital is a meaningful resource to elevate deteriorating well-being (Slone et al., 1999; Charles et al., 2013). Moreover, research reveals the potential of leaders to create hope within their organisations which may aid in elevating deteriorating well-being levels (Yukl, 1998; Helland and Winston, 2005). Accordingly, this research aimed to explore whether leaders creating hope would moderate the relationship between South African socio-economic stressors and psychological well-being.

This study utilised a quantitative non-experimental cross-sectional research design to explore the statistical relationships between South African socio-economic stressors, psychological well-being and leaders creating hope. Data was collected through an online self-report questionnaire (N=130). The questionnaire contained a self-developed demographic questionnaire, an adapted South African socio-economic stressors scale, the Psychological General Well-Being Index, and the adapted Leaders Creating Hope scale.

Results of the study indicated that both South African socio-economic stressors and leaders creating hope were correlated with psychological well-being, and a multiple regression analysis revealed that both South African socio-economic stressors and leaders creating hope are predictors of psychological well-being within the sample. However, even though leaders creating hope was found to have a positive effect on psychological well-being it did not have a moderating effect on the relationship between South African socio-economic stressors and psychological well-being.

Keywords: South African socio-economic stressors, psychological capital hope, leaders, leaders creating hope, psychological well-being.

RESEARCH RATIONALE

Research has shown the dire implications that stressors have for employee psychological well-being and that hope may serve to moderate the negative implications of such stressors on psychological well-being levels (Bliss et al., 2017; Slone and Hallis, 1999;). Moreover, research indicates the potential for leaders to create hope and how this may optimally elevate the psychological well-being of their employees (Luthans, 2002; Frank, 1968; Gallagher & Lopez, 2017). There is, however, little research on the implications of South African socio-economic stressors within South African organisations, along with insufficient research on the beneficial outcomes of leaders creating hope in the stressor – psychological well-being relationships both globally and within South Africa. Accordingly, this research intends to explore this area through examining whether leaders creating hope acts a moderator between South African socio-economic stressors and psychological well-being within a sample of South African employees. As it is important for organisations, employees, and organisational practitioners to be informed of the negative implications of South African socio-economic stressors this research may provide valuable insight within the South African context regarding the stressor-psychological well-being relationship. Moreover, through exploring the potential of leaders to create hope within their organisations the likely positive implications of hope resources may be discovered to aid in attaining optimal employee and organisational outcomes.

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CHAPTER ONE: INTRODUCTION AND LITERATURE REVIEW

Introduction

South Africa has continuously been studied as a context of "high prevalence for continuous traumatic stress" on account of the many stressors within the South African environment (Kaminer et al., 2018). Post-Apartheid levels of crime, violence and ongoing socioeconomic discrepancies have continuously escalated, adding to high levels of trauma exposure and declining well-being (Atwoli et al., 2013). Adding to these stressors are heightened levels of corruption evident in the South African context that Sebake (2020) argues is a "crime against humanity" evident through failing service delivery and growing economic inequalities. This context of social and economic difficulties elevates exposure to different South African stressors (Kaminer et al., 2018). Such exposures may encourage stress proliferation processes where initial stressors instigate and further exacerbate stressors in other domains (Williams, 2018).

Current South African workplaces have been influenced by different socio-economic stressors including political, social, and economic obstacles which act to diminish fundamental physical and psychological resources for South African employees. Psychologists have highlighted the depleting effects of stressors indicating that frequent exposure to stressors produce long-term impairment to the psychological well-being of individuals (Charles et al., 2013). Consequently, within organisations such South African stressors have potential implications for employees, such as deteriorating psychological well-being with subsequent negative organisational consequences. Nevertheless, research tends to focus on outcomes of major life events (for example, Mancini et al., 2011) with less studies highlighting the dire implications of continuously encountering persisting stressors within the South African context and implications for employees and organisations (Charles et al., 2013).

Positive psychology presents different approaches to mitigate hindrances to employee well-being with Psychological Capital (PsyCap) being a key theoretical framework utilised to achieve this. PsyCap, which has been outlined as the positive psychological state of development of individuals, has been a favoured theoretical approach for studies aiming to explore sources of competitive advantage for organisations (Acedo et al., 2006; Newbert, 2007). A key PsyCap resource that may be threatened within current South Africa is PsyCap

hope which may also, if developed, assist employees with deteriorating psychological well-being levels. Hope within PsyCap is presented as an essential resource that builds both agency (goal-directed energy) and pathways (planning to meet goals) in individuals to help them to succeed and overcome difficulties (Snyder et al., 1991). The success of PsyCap hope has led to this resource being one of the most frequently researched constructs in positive psychology with research generating empirical evidence of hope's capabilities to heighten individual performance across different settings (Richardson et al., 2011).

Previous organisational literature (Shorey and Snyder, 2004; Luthans and Avolio, 2003; Yukl, 1998; Helland and Winston, 2005) has highlighted the importance of leaders in organisations and their potential to create hope. Authors including Youssef-Morgan and Luthans (2007) have consequently explored leadership within positive psychological capital with some viewing leadership as a social influence process that can develop hope in employees (Helland and Winston, 2005). According to Hickman (1998) scholars acknowledge that leaders hold the responsibility of continuously assessing the external environment to evaluate changing conditions and trends and to respond appropriately for optimal organisational functioning and employee well-being levels. Effective leadership, therefore, is depicted as stirring and developing hope in employees (Helland and Winston, 2005).

Although there is literature which indicates the importance of hope resources and well-being levels there is less existing literature about the role of leadership in developing hope resources to aid in improving psychological well-being of employees. Additionally, there is inadequate research exploring South African socio-economic stressors and specifically their implications for organisations and their employees. Such explorations are crucial within the current South African context where hope resources are continuously depleted and have dire implications for employee well-being and other organisational outcomes.

In response to the sparse research on South African socio-economic stressor implications for employee well-being and insufficient research on leaders developing psychological capital hope resources this research aims to provide new insights into psychological capital hope, leadership, South African socio-economic stressors, and employee well-being literature. Through assessing PsyCap hope in a less studied environment outside of Western contexts this research can aid in creating understandings regarding how to aid employees through leadership and PsyCap hope resources to increase employees' levels of psychological well-being.

This chapter will proceed by presenting a literature review of the research and theoretical framework in relation to the key variables of interest. Firstly, stress literature will be examined. Following this there will be an exploration of stressors both globally and within the South African context. Implications of such stressors for psychological well-being will also be discussed. Hope as a fundamental resource will be explored generally but also particularly through the Psychological Capital framework. Following this a proposition of leaders developing hope being a moderator for South African socio-economic stressors and psychological well-being will be presented. To conclude this chapter the overall rationale and aims of this study will be presented.

Stress

References to stress are prevalent and extensive in modern research literature with many using the term "stressful" to depict negative experiences associated with daily hassles, major life events, relational difficulties and work challenges (Robinson, 2018). Selye (1976) noted 47 years ago that about 110000 research publications have considered the various aspects and dimensions of stress concepts ranging from fields in behavioural sciences to philosophical notions. A current search of the term stress on Google scholar produces about 6 950 000 results, highlighting stress's continued popularity over the decades. Understandably, various definitions of stress concepts have ensued including Seyle (1976) depicting stress as the body's nonspecific response to demands and stressors as agents that produce stress. Similarly, Chrousos (1998) argued that one's "homeostasis" may be under threat (stress) from extrinsic or intrinsic adverse forces (stressors) and that pathology occurs when an individual's homeostatic state is not maintained. Such diverse interests in stress concepts stem from modern stress research being first explored in various fields in medicine and physiology before it became a distinct concept in the field of psychology (Robinson, 2018). As stress research progressed it subsequently incorporated considerations of cognitive processes that inform how individuals respond to various conditions of daily life.

Of particular interest in stress research is Bernard (1872), a French physiologist considered to be the father of experimental medicine, who has arguably provided the most fundamental contribution to stress research within the medical field. Bernard's (1872) theory of "the environment within" was important to the advancement of modern stress concepts as Bernard

(1872) argued that the body is continuously working to sustain a balanced internal environment. This foundation of physical homeostatic mechanisms, a key underpinning of stress research, was later expanded upon by Walter Cannon (1935). Cannon (1935) combined theories of emotion and homeostasis to shift attention towards developing a theory that explored reasons for bodily function changes when organisms encounter stressors. Various accounts of the stress field (Cooper & Dewe, 2004; Lazarus, 1993; Mason, 1975) tend to trace the starting points of stress research to Cannon who termed the phrase fight or flight when depicting responses to external threats. However, while Cannon was exploring various acute stress responses Selye (1936) was noting different aspects in chronic stress responses. Selye (1936) noted a three-stage pattern of physiological responses to stress (which he then termed the general adaption syndrome (GAS)) later renamed the stress response. Selye's (1936) central argument was that prolonged effects of stress have negative implications for an individual's health. This consideration was the origin of understanding why stress, particularly distress, can be pathological and why concepts of stress have negative connotations attached to it as seen in the South African context.

This synopsis of early stress research highlights the distinct focus previous studies had on physical stressors such as nutritional deprivation, or temperature deregulation (Robinson, 2018). However, the world wars begin to highlight psychological influences and outcomes of severe stressors as studies during World Wars I and II drew attention to the biological impacts of psychological stress. Accordingly, stress researchers started to examine the outcomes of different types of (noncombative) psychological stressors including threats, grief, anxiety, and expectation of negative events. These attempts of proposing psychological justifications for biological responses to non-physical external stressors then led to psychologists arguing that Selye's stimulus-response explanations did not fully capture how a stimulus is perceived as stressful.

On this account Richard Lazarus (1922-2002) became one of the first individuals to contest Selye's general adaption syndrome (GAS) to explore more psychological understandings of stress. This was achieved through Lazarus (1966) presenting the transactional theory of stress and coping, one of the most persuasive theoretical models of psychological stress, which was later extended by Lazarus and Folkman (1984). Through this approach Lazarus (1966) advanced stress research as he explored the various factors involved in the "stress response" through incorporating different findings across disciplines when developing his theory. Lazarus (1966) particularly emphasised the significance of subjective factors within stress processes

and argued that the impact of probable stressors on well-being were mostly determined by how individuals cognitively appraised them. The two forms of cognitive appraisal identified by Lazarus (1966) are: 1) primary appraisal, which determines whether possible stressors were depicted as detrimental, threatening, or challenging; and 2) secondary appraisal, which considers what individuals might do to regulate stressful transactions. Lazarus (1993) later emphasised the various ways individuals may attempt to cope with stress by introducing coping as a buffer of stress. Lazarus and Folkman (1980) proposed that individuals use two broad coping styles that are heavily contextual based upon appraisals of the situation. The first broad coping style, depicted as problem-focused coping, includes the individual identifying the situation as potentially being resolved through using available resources (for example interpersonal, physical, and communicative resources) which allows the individual to consequently take steps to resolve the situation. The second broad coping style, identified as emotion-focused coping, is when the stressor is beyond an individual's control (for example job losses or terminal illness) and the individual attempts to prevent emotional responses to such stressors. This ego-defence mechanism includes examples of avoiding threats, distraction, denial, distancing, and so forth. Overall, this theoretical framework presented by Lazarus and Folkman (1980) highlights the potential of resources through secondary appraisal and different coping styles to act to aid individuals in overcoming different stressors in their context. Nevertheless, little organisational psychology research in South Africa explores how to develop specific resources in employees, such as psychological capital resources including hope, to effectively overcome stressors in our demanding context.

While these developments were occurring during the early 1980s stress research had grown to include an expansive range of approaches and was being integrated into diverse disciplines (Robinson, 2018). This included psychologists operationalising and empirically studying the outcomes of various stressors including daily hassles (Rollins et al., 2002), workplace stress (Borteyrou et al., 2014), perceived stress (Nielsen et al., 2016) and posttraumatic stress (Torres et al., 2012). During this exploration of stress research most early developments started outside organisational psychology literature but were subsequently incorporated into stress research within organisational settings (Bliese et al., 2017). Consequently, numerous theoretical developments of psychological stress started to explore stress and its implications within work settings. In particular Bhagat et al. (1985) presented a model that explored the effects of stressful life events on individual performance, adjustment, and satisfaction in organisations and created a list that specified stressful events impacting job and personal domains. Other

models and frameworks studied work stressors that focused on continuing stressors as opposed to major life events (Bliese et al., 2017). To illustrate, Cooper and Marshall's (1976) review of job stress research along with Behr and Newman's (1978) seminal publications offered frameworks that recognised assorted job characteristics regarded as sources of stress. Similarly, Karasek (1979) produced a model that considered two key job characteristics (job demands and job decision latitude) and speculated that mental strain is the outcome of high demands combined with low decision latitude. Importantly, amongst studies that explored stress implications within organisational settings, additional research started to examine moderator variables that could influence relationships between stressors and outcomes such as psychological well-being. Such moderator variables included individual differences including locus of control (Marino & White, 1985), personality (Parkes, 1994), self-esteem (Ganster & Schaubroeck, 1991), and Type A behavior patterns (Edwards et al., 1990). Contextual variables were also explored such as social support (House, 1981; Viswesvaran et al., 1999). However, regardless of the appropriateness of Psychological Capital within organisations, scarce research explores how to develop and utilise PsyCap resources like hope to moderate the influence of stress on employees. As employees are key within organisations such research is crucial to optimally aid employees experiencing reduced psychological well-being levels within the global and South African context.

Stressors globally and within the South African context

From the different explorations in stress literature this research defines stressors as the events and conditions causing stress outcomes and strains with such outcomes including fluctuating psychological well-being levels (Blise et al., 2017). Historic and present events along with macro societal trends highlight the various political, economic, societal, and technological stressors evident within the global context that influence an individual's psychological well-being. Overall, the past century had numerous major political, economic, societal, and technological changes which presented corresponding stressors (Bliese et al., 2017). This included world wars, economic turbulences (for example, the Great Depression and fluctuating unemployment rates), and industrial and technological advancements impacting job tasks, roles, and stresses. Other stressors include our increasingly globalised economy which elevate stressors such as job insecurity, workload, and downsizing. Understandably, these trends and macro events continuously produce different group and individual reactions to such stressors

including feelings of helplessness, futility, and alienation. Altogether, these political, economic, societal, and technological developments have broad and considerable impacts on societies and individuals.

These stressors are prevalent globally but are further evident in the South African context as highlighted in different studies including Atwoli et al.'s (2013) exploration of the prevalence of trauma and posttraumatic stress disorder in South Africa along with Kaminer et al. (2018) labelling South Africa as a context riddled with continuous traumatic stress. Since the release of Nelson Mandela, South Africa has made numerous strides including our first democratic elections, the Truth and Reconciliation Commission, the (fairly) growing economy, along with progressive transformation in different parts of businesses and society. Nevertheless, regardless of the progress South Africa has made, numerous socio-economic stressors are present in the South African context which produce recurring challenges for South African communities and individuals.

To illustrate, the South African context is arguably one of the most distressing societies owing to its high rates of armed robbery, homicide, corruption, poor service delivery and interpersonal violence (Shaw, 2002; Bollen et al., 1999; Abrahams et al., 2006; Fajnzylber et al., 2002). The distressful context of South Africa may be attributed to its history marked by Apartheid's constitutional racial exploitation and segregation where only recently, in 1994, a non-racial democracy emerged (Atwoli et al., 2013). The attainment of democracy was characterised by political violence which increased stressor exposure regardless of many South Africans concurrently battling varying degrees of socioeconomic inequalities, repression, and deprivations. Informed by this strife-filled history the current South African population continues to experience frequent stressors which presents negative implications for their psychological well-being levels.

Examples of such South African socio-economic stressors include frequent trends of corruption where senior officials and political leaders are associated with misconduct and corruption (Sebake, 2020). The prevalence of corruption correlates with increased poverty and income inequality with Gupta et al. (2002) and Dreher et al. (2007) identifying that such corruption leads to low economic growth, heightened inequalities, and repressed investments. Further examples of stressors within the South African context include chronic or sudden financial crises, high unemployment levels, and economic recessions (Kaniasty and Jakubowska, 2014). Additionally, there are various unresolved social issues (such as human rights violations),

limited access to fundamental wellness services (including basic health care and public education), along with the occurrence of race- and gender-related stressors (Williams, 2018). Overall, these different stressors present negative implications for South African employees which may present further adverse outcomes for South African organisations.

Much research has identified the impact of such socio-economic stressors on psychological distress (Slone and Hallis, 1999; Slone et al., 1999) and provide ample evidence for consequentially lowered psychological well-being of the general population (Huddy and Feldman, 2011; Morgan et al., 2011). This includes, for example, how different governance quality levels had various implications on individual and societal well-being (Oishi, 2012). Additional research explored how conditions of unemployment, sudden economic crises, inflation, and poverty had detrimental implications for individuals' psychological well-being at both societal and personal levels (Chang et al., 2013; Diener & Biswas-Diener, 2002; Kessler et al., 1989; Luhmann et a., 2012). Overall, there is strong agreement that socio-economic conditions and events that subject individuals to various chronic and acute stressors are threats to their psychological well-being (Pearlin et al. 2005; Turner, 2013; Vega & Rumbaut 1991). Accordingly, significant South African socio-economic stressors in areas including health, unemployment, crime, corruption, education, poverty, and inequality may potentially negatively impact countless South Africans and consequently their performance in organisations.

Broad attempts have been made to capture the implications of different stressors such as the Life Events scale which measures stress caused by various life experiences and presents correlations between stressful life events and declining psychological well-being (Monroe, 1982; Zimmerman, 1983; Everly, 1989; Thoits, 1983). Explorations of life events are still a large focus of stress research (McGonagle and Kessler, 1990). Research has noted different types of stressful life events which includes undesirable life changes (arising from acute stresses) (Anderson, 1991; Dohrenwend and Dohrenwend, 1974; Holmes and Masuda, 1974), recurring life events (everyday minor irritations often termed as daily hassles) (Anderson, 1991; Lazarus and Folkman, 1984), and continuous life events (often termed as chronic stressors) (Anderson, 1991; McGonagle and Kessler, 1990) which includes environmental stressors (poverty, discrimination, and so on) and personal stressors (such as financial difficulties, illnesses, interpersonal conflicts). These general life events (stressors) have been found to be recurring predictors of declining psychological well-being such as increased depression (Spangenberg & Pieterse, 1995). Attempts to explore socio-economic stressors are

further seen through Mpondo et al.'s (2023) Soweto Stress Scale, which examines socio-economic stressors facing South Africans residing in Soweto. Other scales that may be applicable within the South African context are Udayar et al.'s (2023) broad LIVES Daily Hassles scale that examines the relationship between daily hassles (repetitive nuisances of day-to-day living), well-being, and stress (although the current research argues that South African socio-economic stressors possess greater severity than daily hassles). Despite these explorations of stressors prevalent both globally and within specific South African settings little research has explored novel ways to buffer the impact stressors have on the psychological well-being of individuals across different settings, especially within South African organisations.

Owing to scarce research it is important for countries, especially developing countries like South Africa, to identify and utilise appropriate intervention strategies that aid in uplifting the psychological well-being of individuals. This is particularly pertinent as stress and coping research have comprehensively emphasised that stress processes have communal dimensions which indicates communal implications of stress for societies at large (Hobfoll, 1998; Jerusalem and Mittag, 1995; Jerusalem et al., 1995; Kaniasty and Norris, 1999). Research further notes that stressors may produce stress proliferation processes where initial stressors may instigate or aggravate stressors in other aspects of one's life (Williams, 2018). These concerns, along with the prevalence of socio-economic stressors within South Africa, further emphasise the importance of examining ways to buffer the impact of South African socio-economic stressors on one's psychological well-being (Landman and Henley, 1998). However, regardless of the importance of an individual's psychological well-being and subsequently South Africa overall, research lacks sufficient engagement in exploring interventions to alleviate the impact of these stressors (Kaminer et al., 2018).

Well-being within psychological literature

As has been evident through the discussion of stress research indicates that associated stressors have implications for various aspects of an individual with particular emphasis being placed on an individual's psychological well-being (Spangenberg & Pieterse, 1995). Psychological well-being (PWB) has been defined in various ways. For example, Farrington (2017, p. 47) defines PWB as the "perception of engaging with life's existential challenges" while Winefield and colleagues (2012, p. 2) depict PWB as "a combination of positive affective states such as

happiness and functioning with optimal efficacy in individual and social life". Overall, literature acknowledges that PWB is crucial for optimal human functioning (Ryan and Deci, 2001). Jahoda (1959) is recognised as forming the foundation of PWB in her work on positive mental health where she explored PWB drawing on factors like personal growth, self-acceptance, and having a purpose in life (Keyes, 2006; Nadinloyi et al., 2013). Following this Diener (2000) created his theory of subjective well-being derived from hedonic assumptions including life satisfaction, happiness and positive-negative affect balance in well-being (Diener, 2000; Diener et al., 1985; Keyes, 2006). Conversely, Ryff (1989) offered a differing focus on well-being through exploring Maslow's self-actualisation, Jung's individualisation, Jahoda's mental health, Frankl's meaning of life, and Erikson's personal development (Ryff, 1989; Ryff and Keyes, 1995; Ryff et al., 2004; Ryff, 2013). This brought Ryff to the single construct known as PWB which included six dimensions – positive relationships, personal growth, environmental mastery, self-acceptance, purpose in life and autonomy.

Current well-being research is therefore rooted in these two perspectives – a hedonic approach and eudaimonic approach to well-being (Ryan and Deci, 2001). A hedonic approach of well-being (subjective well-being) focuses on momentary pleasures and views happiness as the ultimate objective (Andrews and Mckennell, 1980; Diener, 2000; Keyes, 2006; Russell, 2008). Conversely, eudaimonic approaches of well-being (PWB) highlights an individual's developmental potential aiming at self-actualisation (Ryan and Deci, 2001; Watermann, 1993; Waterman et al., 2010). Accordingly, PWB within the eudaimonic approach would centre on the optimal functioning of individuals when pursuing self-actualisation (Ryff, 1989; Ryff and Keyes, 1995). Distinguishing between the two approaches is essential as hedonic happiness is momentary and potentially uncertain while eudaimonia aims for prolonged well-being outcomes. Research suggests that such prolonged well-being outcomes present many beneficial outcomes for individuals (Ryan and Deci, 2001). If different settings including organisations aim to uplift and ensure the well-being of individuals including their employees for a prolonged period it is therefore necessary for them to implement strategies that continuously promote the eudaimonic psychological well-being of their workforce, especially when considering South Africa's socio-economic stressors (Kinderen and Khapova, 2020). However, regardless of the importance of PWB across several contexts, there has been scarce focus on determining and promoting eudaimonic aspects of well-being within specific South African contexts, including South African organisations (Grant and McGhee, 2020).

The associations between psychological well-being and stress exposure have been documented across several working populations with findings highlighting that increased stressor exposure tends to be associated with poor psychological well-being (Kyriacou and Sutcliffe, 1978, 1979; Stansfeld et al., 1997; Tennant, 2001). Moreover, PWB has been explored in relation to diverse organisational constructs including job satisfaction (Jones et al., 2015), employee well-being (Žižek et al., 2015), and relationships between work and family (Grzywacz and Butler, 2005). PWB has been further found to correlate with positive organisational outcomes including employee performance, such as Wright and Cropanzano (2000) noting that optimal PWB results in increases of individual cognitive health and functioning. Additional research highlights reductions in absenteeism (Reynolds, 1997) and improvements in productivity (Robertson and Cooper, 2011; Wright, 2010) when the PWB of employees were elevated. This aligns with the happy-productive worker thesis that asserts that employees with high well-being will have heightened levels of creativity and performance (Wright et al., 2007). Consequently, the psychological well-being of employees is argued as being crucial for workplaces as it impacts critical organisational aspects (Mishra and Venkatesan, 2023). However, regardless of literature revealing the importance of organisations and management in promoting PWB little research explores probable interventions and strategies to successfully elevate their employees' psychological well-being.

The importance and prevalence of psychological well-being is further evident through this construct being established across global populations as a suitable measure of well-being (van Dierendonck et al., 2008; Linley et al., 2009; Ryff and Keyes, 1995). For example, Ryff's construct of PWB has been accepted in diverse organisational contexts including Slovenia (Zizek et al., 2014), India (Rastogi and Garg, 2011), South Korea (Gyu Park et al., 2017), Italy (Tesi, 2017) and South Africa (Maziriri et al., 2019). Accordingly, across these global settings key figures within organisations, including management, ought to elevate PWB as diminishing PWB in organisations presents potential adverse outcomes including burnout, job dissatisfaction and absenteeism (among other outcomes) (Borg & Riding, 1991; Kyriacou, 1987; Laughlin, 1984; Bowers, 2001; Hall et al., 2005). As a developing nation that is seeking economic growth and stability South African organisations and their leaders ought to seek and implement interventions that will aid in uplifting PWB for the welfare of their employees and nation overall (Vazi et al., 2013). However, irrespective of the importance of organisations addressing issues around employees' PWB literature reveals the scarcity of leadership and

management literature focusing on resources for building eudaimonic well-being in their employees, especially in South Africa (Mishra and Venkatesan, 2023).

Hope as a resource for building well-being

Hope is one such resource for building PWB. Explorations of hope date back to Greek mythology including the legend of Pandora's box to more current religious and spiritual traditions that recognise hope as a crucial virtue and source of strength necessary for optimal human functioning (Gallagher & Lopez, 2017). Scholars have asserted that hope is a human strength that allows individuals to optimize resources in their environment and situate themselves on positive developmental pathways (Callina et al., 2017). Regardless of the diverging historical outlooks on hope, years of research have identified and validated that hope can be reliably measured, is malleable, encourages purpose and perseverance, and is beneficial across various settings (Lerner & Callina, 2014). Through emphasis on the malleability, agency and reciprocated influential relations between individuals and their settings, such ideas position hope as a resource for positive human development and functioning. This is further supported by hope being attested as elevating agency, aiding in achieving goals and managing hindrances through positively orienting individuals towards probable prospects and by providing meaning and purpose to present experiences (Callina et al., 2017). Consequently, individuals lacking hope are viewed as being impaired regarding adaptive developmental regulations and are therefore viewed as failing at human flourishing (Callina et al., 2017). Overall, hope is viewed as a fundamental resource and creating positive "ecologies of hoping" is accordingly key for optimal development and elevation of well-being.

Like other positive psychology concepts, hope was generally overlooked as an area of interest for most of the 20th century (Gallagher & Lopez, 2017). However, after World War II psychologists started exploring more positive concepts including hope to better explore how to assist individuals within adverse circumstances (Callina et al., 2017). Hope thereafter was progressively studied within psychology, with theoretical views and empirical evidence framing hope as a positive resource that encouraged positive outcomes for human functioning (Gallagher & Lopez, 2017). This includes the works of Seligman (1998) who founded the positive psychology movement and postulated this movement as a psychological advancement that emphasised individual strengths, prosperity and growth rather than individual deficiencies and dysfunctionalities (Luthans, 2002). Here hope was studied at the subjective level as a

positive subjective experience that linked to aspects such as well-being and contentment. Other important developments in this direction includes Menninger's (1959) contention that hope was an essential yet understudied component in mental health studies and argued for the legitimacy of hope in human development. This argument was restated by Frank (1968) who affirmed that hope was one of the most reliable and effective forces in psychotherapy and was essential for encouraging recovery. Similarly, Stotland (1969) highlighted hope as necessary for therapeutic undertakings. Tiger (1979) further argued that hope was a distinct characteristic of humanity and presented a notable cognitive resource. Overall, these early hope theories collectively upheld the notion that hope was a positive resource that aided individuals in goal attainment and health promotion (Gallagher & Lopez, 2017).

An important development in previous psychological research on hope includes Snyder's (2002) dominant model of hope, the agency-pathways theory of hope, that identifies the two components of hope being agency and pathways thinking and presented the foundation for scientific investigation of hope. Snyder et al. (1991) provides two definitions of hope, the first being that hope is "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)" (Snyder et al., 1991, pp. 287). The second definition depicts hope as "a cognitive set that is based on a reciprocally derived sense of successful agency (goal-directed determination) and pathways (planning to meet goals)" (Snyder et al., 1991, 571). Research founded on Snyder et al.'s (1991) hope theory identifies correlations between high hope levels and physical health, managing injuries and illness, and improved mental health (Rand & Cheavens, 2009). Regardless of the popularity of Snyder et al.'s (1991) approach and measures various critiques are present including arguments that this framework does not fully represent the essence of hope and ought to be more illustrative of goal pursuit perseverance (Aspinwall & Leaf, 2002; Tennen et al., 2002). This highlights the need to better explore and measure hope, which this research aims to do through utilising the framework of Psychological Capital.

Psychological Capital and the resource of hope

Within the positive psychology movement employee issues such as stress and strain were being addressed through exploring the role of human strengths in encouraging optimal employee well-being in relation to performance and organisational outcomes (Youssef-Morgan &

Luthans, 2015). These revelations influenced positive psychologists and positive organisational behaviour (hereafter referred to as POB) scholars to develop new research streams focusing on positivity to uplift the well-being of employees.

Positive psychology makes use of a paradigm that views reality as objectively perceivable, fixed, and generalisable, implying that it can transcend contexts (Ward et al., 2015). Understandably, this is problematic within the South African context where emphasis on the individual does not provide appropriate attention to contextual and social influences and how this may influence psychological well-being. However, recent developments in positive psychology principles have expanded to include further explorations of these factors (Colla et al., 2022). This is achieved through integrating more interdisciplinary perspectives that study the complexities of environments and human behaviours. Such advances ensure that positive psychology principles are more applicable within contexts like South Africa that often do not uphold strong individualistic principles. These advancements in positive psychology principles therefore encourage further developments in related theories, including hope theory, as there is greater uptake of these principles within more collectivist contexts.

For example, expansions of positive psychology to include both external and internal loci of hope increases the relevance of positive psychology and relating principles within the South African context (Colla et al., 2022). This is achieved through the interdisciplinary inclusion of external factors which consequently includes broader system influences within positive psychology applications across different contexts (Bernardo, 2010; Bernardo et al., 2018). This further enforces the cultural relevance and applicability of positive psychology within non-WEIRD (Western, Industrialised, Educated, Rich, and Democratic) populations as arising interdisciplinary approaches encourage greater representation and validation of differing notions. Accordingly, these principles encourage more inclusive collaborative approaches that may empower South Africans through advancing such knowledge and insights. Overall, this makes positive psychology and its branches of inquiry, including hope, relevant within the South African context.

This research is centred on one of these positive psychology streams, Psychological Capital (hereafter referred to as PsyCap). POB was defined by Luthans (2002) as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, pp. 59). PsyCap has been defined as “an individual’s positive

psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" (Luthans et al., 2007, pp. 3). The fundamental theoretical thread linking the four psychological resources meeting these requirements is a positive evaluation of circumstances and probability for accomplishment derived from motivated effort and perseverance, along with an internal sense of control, intentionality, and agency (Youssef-Morgan & Luthans, 2013a, Youssef-Morgan & Luthans, 2013b). Research has empirically supported PsyCap as a higher-order construct (Luthans et al., 2007) open to development (Luthans et al., 2006; Luthans et al., 2008) and being related to elevated performance (Luthans, et al., 2007). Accordingly, PsyCap may positively influence employee stress levels and consequential well-being particularly in response to various stressors (Avey et al., 2009).

Within the Psychological Capital framework, the psychological resource of hope is derived from Snyder's (2000) theory and research. As previously mentioned, Snyder and colleagues (1991) defined hope as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder et al., 1991, pp. 287). The resource of hope is distinct from other psychological resources as hope comprises both willpower (individual's agency to achieve goals) and "waypower" thinking (the ability to develop alternate pathways and contingency plans to accomplish goals regardless of obstacles) (Youssef-Morgan & Luthans, 2015; Avey et al., 2009). However, like the other psychological resources hope has been conceptualised and measured as both a dispositional state and trait (Snyder et al., 1996). This indicates that the hope resource can be managed and developed through various workplace 'preparedness' methods including training and practice which includes goal setting and contingency plans (Luthans et al., 2015; Luthans, 2012; Luthans et al., 2008). The state-like nature of hope which makes it malleable yet stable signals the potential for it to be an optimal resource to develop in organisations. This state-like nature has been supported in longitudinal research (Peterson et al., 2011) along with various empirical studies which further support the developmental capabilities of PsyCap resources (for example, through short training and micro-interventions) (Luthans et al., 2006; Luthans et al., 2010; Luthans et al., 2008). Overall, studies find that individuals with high levels of hope display greater goal-directed energy and were more

probable to develop alternate pathways to achieve their goals (Luthans et al., 2008). However, regardless of the evident importance of hope as seen within other settings (for example, clinical psychological, and athletic settings), inadequate research (both globally and within South Africa) has explored how to develop and therefore gain hope resources in relation to other key organisational constructs within workplace settings including stress, leadership and well-being (Youssef-Morgan & Luthans, 2015).

Hobfoll's (1989) Conservation of Resources theory (COR) is one prevalent framework to depict how hope as a resource can be gained and lost in relation to key organisational constructs including stressors. Hobfoll defined resources as "objects, personal characteristics, conditions, or energies" that are favoured by individuals and through which one may obtain additional resources to minimise stress (1989, pp. 516). COR further asserts that individuals strive to secure, reserve, and pursue resources (resource gain) and that stress is a result of actual or threatened losses of resources (resource loss), or not having adequate resource gains. Herttuala and colleagues (2020) noted that gaining resources may assist in overcoming adversities and has favourable impacts on well-being, whereas resource loss or having inadequate access to resources significantly threatens well-being. From its initial conception PsyCap has been conceived as psychological resources and that having PsyCap resources may positively promote individual well-being (Luthans et al., 2015; Avey et al., 2010; Youssef-Morgan & Luthans, 2015). Hope in this study is therefore defined as a psychological resource that can be gained or lost with consequential implications for an individual's well-being. Accordingly, regularly replenished psychological capital hope resources through PsyCap management and development can aid in elevating well-being levels (Cameron, 2008; Youssef-Morgan & Luthans, 2015). Insufficient research has explored various means to increase resource gains of hope within organisational settings, particularly in the stress-riddled context of South Africa.

Within South Africa PsyCap resources including hope have been shown to be durable but also open to development (Herbert, 2011). Additional studies have found the positive relationship between PsyCap resources with positive organisational outcomes in South African organisations (Appollis, 2010; Beal et al., 2013; Barkhuizen & Du Plessis, 2012). This indicates a potential approach to respond to South African stressors impacting employees as organisations and their leaders may attempt to develop employee hope resources to moderate potential deteriorating employee psychological well-being levels (Luthans et al., 2008, p. 235). Through adopting a psychological capital approach that builds hope resources new possibilities

arise for organisations and key figures, such as management and leaders, to effectually aid employees within the broader social and economic context impacting individuals and their PWB (Barkhuizen & Du Plessis, 2012). However, regardless of the capabilities of PsyCap resources including hope, adopting a positive psychological approach in organisations has been largely neglected as a means of addressing the impact of South African stressors on their employees' psychological well-being (Luthans et al., 2004). As prevailing South African socio-economic stressors continue to deplete psychological well-being levels of employees further research is necessary to explore how resources like hope can aid in effectively moderating the relationship between these two constructs.

The potential of leaders to create hope

Currently there are various concepts and models of leadership including leadership theories stemming from trait, behavioural, contingency, and transformational concepts (Helland & Winston, 2005). Overall, most approaches agree with Bass's (1990) deliberation that leaders are agents of change along with Hickman's (1998) assertion that within every aspect of an organisation leaders are important for achieving organisational goals. Additionally, Yukl (1998) denotes leadership as an influential process where, along with directing employees towards organisational objectives, leaders encourage and develop behaviours towards attaining such goals. One of the key facilitators that encourages optimal efforts and activities towards achieving organisational purposes is the phenomenon of hope (Helland & Winston, 2005). Hope theory has been adopted in organisational leadership literature, such as Shorey and Snyder (2004) recognising hope development as a prevalent process in leadership and Luthans and Avolio (2003) highlighting that an important function of leaders is the ability to produce hope. Components of hope are further evident in organisations as leaders and employees pursue various team and organisational objectives that include hope aspects of goals, pathways, and agency-thinking. Accordingly, Shorey and Snyder (2004) reason that hope is an evidently prevalent leadership process as leaders encourage future orientation towards attainment of goals. As custodians of employee well-being in organisations leaders ought to be crucial change agents who meaningfully develop and promote hope resources in their workforce (Barkhuizen & Du Plessis, 2012). Nevertheless, insufficient research has studied leaders' development of hope resources in employees and subsequent well-being outcomes, particularly within South African organisations, which this research aims to address.

Hope and leadership literature possess various theoretical linkages as motivation, goal setting and goal pursuit are prevalent in both leadership and hope studies along with there being emerging leadership concepts that frequently include hope as a key element (Helland & Winston, 2005). Theories that explain motivation in leadership studies include Vroom's (1964) Expectancy Theory along with the depiction of Inspirational Motivation in the Transformational Leadership Theory (Bass & Avolio, 1994). Additional theories explain goal setting and goal pursuit in leadership literature including Locke's (2002) Goal Setting Theory and House's (1996) Path-Goal Theory. These various theories highlight how leaders, through processes of motivation, goal setting and pursuit, direct followers to strive towards various goals (Helland & Winston, 2005). Moreover, emerging leadership considerations further the notion of hope in leadership through directly recognising hope as a variable and noting the generative nature of hope within leadership processes as seen in Luthans et al.'s (2001) positive approach to leadership (PAL). The elements of PAL consisting of the acronym RICH (realistic optimism, intelligence (emphasis on emotional intelligence), confidence, and hope) includes the hope component though utilizing Snyder's (2000) hope construct comprising pathways and agency.

Importantly, hope is identified as both a state and a trait that can be developed through leadership development interventions. This is affirmed through Peterson and Luthans's (2003) study that found a significant relationship between leader trait hope, financial performance, and human resource outcomes. Norman et al. (2005) further asserts that both positive psychology and positive organisational behaviour illustrate hope as a strength that has numerous benefits for organisations both with regards to effective leadership and consequential employee performance and retention. However, although there is evident importance of hope in leadership, insufficient research has explored the concept of hope creation by leaders within global and South African contexts (Helland & Winston, 2005). Accordingly, Helland and Winston (2005) call for such research to be conducted in diverse applied contexts to test the theoretical assumptions of and further measure the impact of hope within organisations in cross-cultural settings. This aligns with Luthans et al.'s (2004) deliberation that within such adverse economic and geopolitical periods both countries and organisations ought to strive towards developing hope resources. This research responds to this appeal through utilising the framework of Positive Psychological Capital to examine the impact of leaders creating hope within the under-research context of South Africa.

Research questions

1. Is there a relationship between South African socio-economic stressors and psychological well-being in South African employees?
2. Is there a relationship between leaders creating hope and psychological well-being in South African employees?
3. To what extent do South African socio-economic stressors and leaders creating hope predict psychological well-being in South African employees?
4. Does leaders creating hope moderate the relationship between South African socio-economic stressors and psychological well-being in South African employees?

CHAPTER TWO: METHODOLOGY

Introduction

The following section will explore the methodological approach of this study. Firstly, the chosen research design of this study will be depicted. The procedure, sample and sampling strategy will then follow. The research instruments and data analysis chosen to answer the research questions will be explored. Lastly, there will be a discussion of the ethical considerations pertinent to this study.

Research Design

This research made use of a quantitative non-experimental cross-sectional research design founded within the positivist paradigm as it aimed to look at the statistical relationship between South African socio-economic stressors, psychological well-being, and leaders creating hope. This is a suitable approach for this research as it aligned with the research aims of firstly assessing whether South African socio-economic stressors (predictor) and leaders creating hope (moderator) predicts psychological well-being (outcome) and it further assessed whether leaders creating hope moderates the South African socio-economic stressors-psychological well-being relationship (Gelo et al., 2008). A strength of this research design is that the results can be used to make causal inferences regarding the significant relationships between the predictor and outcome variables along with assessing the interaction effect of the moderating variable between the predictor and the outcome. Accordingly, this research design allows for testing of significant relationships among the variables and for producing future predictions. However, limitations of this design include not being able to establish causality between the studied variables which hinders interpretations of why relationships were found (Howitt & Cramer, 2005). It is also noted that there are potential extraneous variables that may impact the relationship between the discussed variables, however, it was outside the scope of this research to measure every possible variable impacting the studied relationships. Regardless of these limitations this non-experimental design is appropriate as it allows for relationships among the studied variables to be assessed in a cost effective way.

Procedure

Before the data collection process began, ethical clearance was applied for and obtained from the University of the Witwatersrand's Human Research Ethics Committee (non-medical) (clearance protocol number: MAORG/23/01) (Appendix A). In addition to this the necessary permission was gained to use and adapt the Psychological Capital Hope subscale (to create the Leaders Creating Hope scale) (Appendix B) along with gaining permission to use the General Well-Being Schedule Questionnaire (Appendix C). An adapted South African Socio-Economic Stressors scale was also created for the purpose of this study from both Mpondo et al.'s (2023) Soweto Stress Scale and Udayar et al.'s (2023) LIVES Daily Hassles scale (Appendix D). Once ethical clearance and permission for the required subscale was obtained an online survey was created using Google Forms. This online survey included a participant information sheet (Appendix E), and participants were made aware that completion of the questionnaire indicated consenting to participate in this study. After the participant information sheet, the online survey also included a self-developed Demographic Questionnaire (Appendix F), the adapted South African Socio-Economic Stressors Questionnaire (Appendix D), the General Well-Being Schedule Questionnaire (Appendix G), and the (adapted) Leaders Creating Hope Questionnaire (Appendix H).

This study made use of snowball sampling through inviting potential participants through a brief invitation and a link to the online survey through online platforms, such as LinkedIn. This link was secured and encrypted for confidentiality purposes. Potential participants were requested to share the brief invitation (Appendix I) with other individuals that may fall within the target sample (employees working within South Africa who are overseen by a manager/supervisor/employer). The online survey took approximately 10 to 15 minutes to complete, and the online survey remained open until a sufficient sample was attained (about 3 months). Once the data collection was completed, the online questionnaire was locked and the data was downloaded, cleaned, and assessed for errors in Microsoft Excel. Once the data was cleaned and assessed, it was exported to the statistical software IBM SPSS Statistics for statistical analysis.

Sample and sampling strategy

To appropriately answer a study's research questions quantitative research places particular emphasis on obtaining an appropriate sample that best represents the desired target sample (Laher & Botha, 2012). In alignment with the aim of this research study's questions this research's target population was South African employees currently working on a full-time basis within South Africa who are overseen by a leader (such as a manager, supervisor, employer, and so on).

This sampling strategy for this research was non-probability convenience sampling as volunteer respondents were used for accessibility purposes (Gelo et al., 2008). Specifically, an online snowball sampling strategy was used through online and social media platforms as those who participated were asked to share the survey with others who fit the desired characteristics (Laher and Botha, 2012). Limitations of this strategy include being unable to control or measure variabilities and biases along with not providing everyone equal opportunities to participate in this research (Acharya et al., 2013; Corner, 2002). One can also not generalise the research findings as there will be no random assignment and the sample therefore does not represent the population (Acharya et al., 2013). Accordingly, attempts to minimise issues like sampling bias were undertaken through ensuring that the online questionnaire was straightforward, easy to understand, and as accessible as possible. Overall, this sampling strategy is appropriate for this study as it was cost-effective and provided a reasonable sample size to be collected within a short period (Acharya et al., 2013).

The sample consisted of individuals drawn from online snowball sampling methods using online platforms such as LinkedIn. No exclusion criteria were used for this sample regarding occupation, job level, tenure, race, religion, or gender. Participants had to be over the age of 18 years and had to be a South African employee. Additionally, as this study focused on employee experiences of leaders creating hope, the sample consisted of individuals who are overseen by a manager/supervisor/employer/leader, therefore another required exclusion criteria was that of excluding individuals who are not managed by a manager/supervisor/employer/leader. Additionally, as the questionnaire was distributed electronically all participants were required to access a computer and internet to complete the questionnaire. Using this sample allowed data to be collected from the participants for conclusions to be drawn regarding South African employee experiences of South African Socio-Economic stressors and Psychological Well-Being in relation to creations of PsyCap hope (Acharya et al., 2013; Corner, 2002).

The sampling strategy used resulted in 138 responses. Once the data was cleaned and responses that fell outside the required criteria (for seven this was not being led by a superior) or did not provide consent (as one respondent did not provide consent to be part of this research study) 130 respondents were included in this study. It would have been preferable to have obtained a larger sample size as this would have better approximated the population, however the response rate was slower than expected. Of the final 130 responses utilised descriptive statistics and frequencies were used to analyse the cleaned data to define the characteristics of the sample (Canning, 2014).

Demographic statistics and frequencies (Appendix K) indicated that the majority of the final 130 participants were female (72.3%). The average age group of the participants were 18–30-year-olds (54.6%) with a standard deviation of 1.176 followed by 31–40-year-olds (19.2%) with only 3 (2.3%) participants falling into the 60 years and older category. In terms of race, 38 (29.2%) participants were Coloured, 34 (26.2%) participants were African, 34 (26.2%) participants were White, and 24 (18.5%) participants were Indian. No participants indicated falling outside of these racial categories. English was the majority spoken language for this sample (66.9%) followed by Afrikaans (10.8%), isiZulu (4.6%), isiXhosa (3.8%), Other (3.8), Sesotho (2.3%), Setswana (2.3%), Sepedi (1.5%), Tshivenda (1.5%), isiNdebele (.8%), siSwati (.8%), and Xitsonga (.8%).

Participants were asked to indicate the length of time that they had been working within their current organisation. The results indicated that majority of the participants have been at their current organisation for 2-5 years (45.4%) with a standard deviation of 1.325. This was followed by 0-1 year (25.4%) and then 6-10 years (16.9%). 2 (1.5%) participants indicated that they have been at their current organisation for 16-20 years while 3 (2.3%) participants indicated that they have been at their current organisation for 31-40 years. 4 (3.1%) participants also indicated that they have been at their current organisation for 21-30 years while 6 (4.6%) participants indicated that they have been at their current organisation for 11-15 years.

Participants were also asked to identify their occupational level at their current organisation. The majority of the participants were at an intermediate level (27.7%). This was followed by 32 (24.6%) participants who were at an entry level and 21 (16.2%) participants who were at junior management levels. Responses indicate that less of the participants were at higher occupational levels with 19 (14.6%) being at a middle management level and 10 (7.7%) being

at an upper management level. 11 (8.5%) participants indicated "Other" regarding their occupational level within their organisation.

Participants were further requested to provide the industry in which they are currently working in. As there was a large range of industries reported the researcher grouped the participants' responses into relating categories for the frequency interpretations. The results indicates that majority of the sample (22.4%) were working within the education sector; followed by the banking, finance, and commerce industries (20.7%). This was followed by the consultancy, recruitment, psychological services (assessments) industries (16.2%) and then the construction, manufacturing, transport, and trade industries (12.3%). 13 (10%) of the respondents were in the healthcare sector while 11 (8.4%) of the respondents were in the telecommunications and information technology industries. A small proportion of respondents were in the advertising and marketing industries (5.4%) and the film and entertainment industries (4.6%).

Research instruments

This research study utilised three self-report instruments to collect the data, namely an adapted South African Socio-Economic Stressors scale (Appendix D), the Psychological General Well-Being Index scale (Appendix G), and an adaption of the Psychological Capital Hope subscale (Appendix H). The demographic questionnaire (Appendix F) asked the participants about their characteristics including their gender, age, race, home language, current job level, job industry, tenure, and whether they are led or overseen by a leader/manager/supervisor. This information was used to describe the sample and no identifying information was collected from the participants.

Self-Developed Demographic questionnaire

A self-developed biographic questionnaire was used to collect demographic information about the sample (Appendix F). The requested variables included age, gender, race, home language, tenure, occupational level, and job industry. The questions on age, gender, race, home language, and occupational level were in a multiple-choice format, while the questions on tenure and job industry required a short answer. These variables were only used to describe the sample and no identifying information was requested.

Adapted South African Socio-Economic Stressors Scale

A search of the literature revealed the no specific scales that measure the general South African Socio-Economic stressors faced by the South African population. Accordingly, this research created an adapted South African Socio-Economic Stressors Scale that includes a combination and adaption of both Mpondo et al.'s (2023) Soweto Stress Scale and Udayar et al.'s (2023) LIVES Daily Hassles scale (Appendix D). The Soweto Stress Scale has some items applicable to the wider South African population however, the majority of the scale is specific to groups residing in Soweto and therefore does not appropriately address all general South African socio-economic stressors (Mpondo et al., 2023). The LIVES Daily Hassles scale presented by Udayar et al. (2023) is a recent tool to assess daily hassles. While it is acknowledged that daily South African socio-economic stressors are not daily hassles (repetitive nuisances of day-to-day living) as they possess more severity than daily hassles it is argued that the underlying factors of the items of each scale (financial, relational, physical, environmental, and work-related factors) are applicable to stressors faced by South African individuals. Therefore, both scales were considered appropriate for adaption for a South African Socio-Economic Stressors Scale to measure socio-economic stressors facing individuals within South Africa. An example of an item is: "Over the last four weeks I felt stress or worry associated with the corruption and injustices I face in my daily life". Both the Soweto Stress Scale and the LIVES Daily Hassles scale are reliable and valid scales. The Soweto Stress scale has a Cronbach's alpha of 0.81 indicating excellent reliability along with evident construct validity as this scale was positively correlated with three domains of the General Health Questionnaire (somatic symptoms, anxiety, and severe depression domains) (Mpondo et al., 2023). An exploratory factor analysis of the LIVES-DHS indicated that the 18 items represented the five aforementioned factors describing the types of hassles impacting everyday life (Udayar et al., 2023). A confirmatory factor analysis of the LIVES-DHS highlighted that the five dimensions of daily hassles are meaningful sources of daily stressors and further provides superior fit to the unidimensional model.. The South African Socio-Economic Stressors Scale has a total of 27 items measured on a 5-point Likert-type scale with anchors 1 = strongly disagree and 5 = strongly agree. Please refer to (Appendix J) for a table that presents the selected items from either scale with justification for their inclusion in the developed South African Socio-Economic Stressors Scale.

Dupuy's (1990) Psychological General Well-being Index

Psychological well-being was measured using the Psychological General Well-Being Index (PGWBI) (Appendix G) which is a measure of an individual's level of subjective psychological well-being (Grossi & Compare, 2012). This scale captures subjective perceptions of well-being through evaluating self-representations of intrapersonal emotional or affective states which reveals a sense of the individual's distress or subjective well-being. This scale consists of 22 self-administered items rated on a 6-point scale and presents a single measure of psychological general well-being. This full measure presents subscales that evaluate six HRQoL domains including anxiety, depression, positive well-being, self-control, general health, and vitality. Each item has six possible scores (ranging from 0 to 5) and asks about the last 4 weeks of the respondents' lifetime. Each domain has between a minimum of 3 to a maximum of 5 items. An example of an item is: "Were you generally tense or did you feel any tension in the past month?". The best attainable level of well-being (a state of blissfulness) consists of a summation of all the domains' scales (the global summary score) which reaches a theoretical maximum of 110 points (Dupuy, 1990). The American PGWBI's internal consistency was high in various studies as the Cronbach's alpha values ranged between 0.90 and 0.94. The test-retest coefficient indicated that the intra-subjective reproducibility ranged around a median value of 0.80. Through different studies the internal consistency (the extent to which the items are interrelated) as indicated by the Cronbach's alpha coefficient ranged from 0.80 to 0.92, revealing good internal reliability. Accordingly, this scale was deemed suitable to use for this research study. Permission to use this scale was requested and granted through an online application (Appendix C) submitted to Mapi Research Trust (the organisation that holds the rights for the use and distribution of this instrument).

Adapted Leaders Creating (Psychological Capital) Hope Scale

Leaders Creating Hope was measured through an adaption of Luthans and colleagues' (2007) hope subscale from their Psychological Capital Questionnaire (PCQ) (Appendix H). This scale consists of 6 items measured on a self-report 6-point Likert-type scale with anchors 1 = strongly disagree and 6 = strongly agree. Through four independent samples Luthans et al. (2007) reported internal consistency reliability for the hope subscale ranging between 0.72, 0.75, 0.80, and 0.76 for each relative samples used. Overall, PCQ measures have been previously applied to South African samples with findings having internal consistency reliabilities ranging from α

= 0.67 to 0.90 for the four PsyCap subscales (Barkhuizen & Du Plessis, 2012; Görgens-Ekermans & Herbert, 2013; Simons & Buitendach, 2013). The hope subscale was therefore deemed appropriate to use in the South African context for this study. To obtain permission to use the PsyCap hope scale for the purpose of this research study an online application (Appendix B) was submitted to Mind Garden (the organisation that holds the rights for the use and distribution of the PCQ-24) which was granted. Permission was also granted by Mind Garden to alter this scale so that this research could specifically assess how leaders create hope in their employees (Appendix B). Each item was altered in a way where, rather than the respondent reflecting on how they individually displayed or enacted hope, the item depicted how that respondent's leader/supervisor/manager/employer developed hope in that respondent. For example, the item "There are lots of ways around any problem" was altered to "My leader helps me see lots of ways around any problem." This ensured that leaders creating psychological capital hope in the respondents was measured in this study.

Data Analysis

Once the data collection was completed the raw data from Google Forms was downloaded and exported into a Microsoft Excel spreadsheet. The data was then cleaned, coded, and checked for errors within the Microsoft Excel spreadsheet. Once the data was cleaned and assessed, it was exported to the statistical software IBM SPSS Statistics (version 26) for statistical data analysis. Two participants had missing data for the demographic information (one participant had a missing response for job level while a different participant had a missing response for tenure). As this was not pertinent to the statistical analyses (as the missing information was related to the demographic information) and as the information was missing at random the missing information was ignored. Once the data was cleaned the descriptive statistics of the data was assessed. Subsequently, Exploratory Factor analyses were conducted for the adapted Leaders Creating Hope scale and the adapted South African Socio-Economic stressors scale to determine their underlying factor structures (Field, 2013). Once this was determined the Internal Consistency Reliabilities were conducted for all the scales used in this study. Thereafter different inferential statistical analyses (hypothesis testing) were used to draw inferences about the dataset along with assessing the relationships present among the variables (Roger, 2015). Before each statistical test was conducted the relevant assumptions were first checked. As the data for Leaders Creating Hope was not normally distributed the data for this

variable was transformed (using a log transformation of the reflected data) as normality is an important assumption to meet for each statistical analysis. As parametric assumptions were thereafter met for each statistical analysis parametric statistical analyses were conducted to test this study's research questions including Pearson's Correlational Coefficients, a Multiple Regression analysis, and a Moderated Multiple Regression analysis. Below are the various data analyses described in more detail.

Descriptive Statistics

Frequencies were run for all demographic variables which included variables such as gender, age, race, home language, tenure at organisation, and job level. This was conducted solely for the purpose of describing the sample of this study and was not used for any further statistical analyses (Apuke, 2017). Descriptive statistics were run for all interval variables (for all item and scale totals) which includes measures of spread and distribution (standard deviation, skewness, and kurtosis coefficients) and measures of central tendency (mean and median) to describe each scale's scores. Normal distribution of the data was determined through assessments including the Central Limit Theorem (CLT), histograms, skewness and kurtosis coefficients, and tests of normality. Normality of the data distribution is an important assumption for most parametric statistical tests as it specifies that most of the respondents' scores exist around the centre of the distribution (Field, 2013). The CLT states that a sample size greater than 30 is sufficiently normal with a greater sample size being more inclined to normal distribution. This is due to an increase in sample size allowing for its distribution to better approach a normal distribution. Normality can further be established graphically through histograms as it reveals the pattern of spread around the mean of the data. Skewness and kurtosis coefficients also aid in establishing normality. Skewness coefficients measure the symmetry or lack of symmetry of the scores' distribution through comparing the size of the mean and median while considering their standard deviations (Kim, 2013). An acceptable range that indicates normality is where the data lies within -1 and +1 with data outside of this range being either negatively or positively skewed (Field, 2013).

Kurtosis coefficients measure how peaked the spread of data is which provides insight into whether the respondents' scores are gathering at the tails of the distribution with an ideal kurtosis for normality being within the range of -3 to +3 (DeCarlo, 1997). If the kurtosis coefficients fall outside this range, they may either be platykurtic (a flatter distribution as the

scores are widely spread) or leptokurtic (a more peaked distribution as scores are concentrated around the centre). Tests of normality, such as the Kolmogorov–Smirnov test and the Shapiro–Wilk test, can also be used to test for normality. When these tests indicate a significant result the data is signified as being significantly different from normal (Field, 2013). Although these tests are useful, they are very sensitive to data that may be even slightly skewed regardless of the data being deemed sufficiently normal. Accordingly, it is most appropriate to use a combination of these normality assessments to determine whether the data is sufficiently normal as was carried out in this research study. As Leaders Creating Hope was not normally distributed according to these different assessments of normality the data for this variable was transformed using log transformations of the reflected data.

Exploratory Factor Analysis

Before the relationships among the variables were analysed an Exploratory Factor Analysis (EFA) was conducted to determine the underlying factor structure of the adapted South African Socio-Economic Stressors scale and the adapted Leaders Creating Hope scale. An EFA is a process that explores and identifies the underlying factor structure of a group of variables but does not impose a predetermined structure on the result (Suhr, 2006; Williams et al., 2010). An EFA also assesses the construct validity of the instrument used. As both the Leaders Creating Hope scale and South African Socio-Economic Stressors scale have not been widely used in it was necessary to conduct an EFA to assess where the respective scales measured coherent factor structures. Before conducting the EFA various assumptions were first checked which included the following: 1) variables must be measured at least on an interval scale, 2) no outliers may be present in the data, 3) there must be independent, random sampling, 4) data must be normally distributed, 5) linearity must be present, 6) having a sample size of at least 100 or having a minimum of 3 individuals per item of the scale being assessed, and 7) sphericity must be present within the data (Field, 2009; Kline, 1994; Suhr, 2006).

The assumptions were met as: The variables were interval in nature (as they were measured on a Likert-type scale), outliers were tested using boxplots, the sampling was random and independent, the data was deemed normally distributed using the previously discussed assessments, linearity was established through scatter plots, the sample size of 130 was deemed sufficient according to Field's (2013) and Kline's (1994) sample size guidelines for EFA, and the determinant of *r* was used to established multicollinearity. Once each of these assumptions

were evaluated and met an EFA was conducted to determine the factors present in the scales using an Orthogonal Varimax rotation. This is a common rotation technique used to simplify the unrotated factor-loading matrix for analysis (Pett et al., 2003). The specific number of factors used to describe the Leaders Creating Hope scale and South African Socio-Economic Stressors scales were determined through an analysis of the eigenvalues and Cattell's scree plot for each respective scale. Items having an eigenvalue greater than one were kept as they present common factors. Cattell's scree plots for each respective scale were also used to determine the number of factors to retain through assessing the number of factors on the x-axis, the eigenvalues on the corresponding y-axis, and the point on the plot which curved (indicating the number of factors to retain) (D'agostino & Russel, 2005).

Internal Consistency Reliability

Once the factor structures of the two adapted scales were established the internal consistency reliability of each instrument's scale and subscales were examined. Assessing the internal consistency reliability of each (sub)scale allows for examination of whether the items of each respective (sub)scale measured the same underlying construct (Peterson and Luthans, 2003). Cronbach Alpha coefficients were used to assess the internal consistency reliabilities as they indicate how a set of items are related as a group (Tavakol & Dennick, 2011). This ensures that the items of the respective (sub)scales are appropriately correlated with one another and are therefore consistently assessing the various constructs of interest (Blanche et al., 2006). An acceptable Cronbach Alpha coefficient is between 0.60 and 0.70 with any score lower than 0.60 being unacceptable and the instrument being considered unsuitable to use in research studies (McKennel, 1970). Similarly, any scores higher than 0.95 may indicate that the items are too highly correlated implying potentially redundant items (Bland & Altman, 1997). Accordingly, Cronbach alpha coefficients were run for each scale used and the reliability of each scale was measured on a scale ranging from 0 to 1 where a value of 0.7 to 1 indicates a good-to-excellent internal consistency reliability for that scale.

Pearson Correlation Coefficients

Correlational tests were used to answer the research questions: "Is there a relationship between South African socio-economic stressors and psychological well-being in South African

employees?" and "Is there a relationship between leaders creating hope and psychological well-being in South African employees?". This correlational technique explores whether there is a relationship between South African socio-economic stressors and leaders creating hope with psychological well-being in South African employees. Specifically, Pearson correlation coefficient (r) was used within this research study. This correlation measures the strength and direction of a linear relationship between two variables (Gregory, 2007). The Pearson correlation coefficient ranges between -1 and +1 with a stronger relationship existing between the two variables if the coefficient is closer to -1 or +1 (Stangor, 2011). A significant result for the relationship between the two variables is when the *p* value (alpha) is less than 0.05 and this relationship can either be negative or positive.

The different Pearson correlation coefficients obtained in an analysis indicate different types of relationship with Evans (1996) noting that a value of 0.00 to 0.19 indicates a very weak relationship, a value between 0.20 to 0.39 indicates a weak relationship, a value between 0.40 and 0.59 indicates a moderate relationship, a value between 0.60 and 0.79 indicates a strong relationship, and a value between 0.80 and 1 indicates a very strong relationship. Pearson correlation coefficients were appropriate to use within this research study as all the required parametric assumptions were met. This included having normal distribution of data, having linear relationships between the variables of interest, having variables be measured at the interval level, having random and independent samples, having no influential outliers, and having homogeneity of variance (Huck, 2012). As previously discussed, when assessing the required assumptions for conducting the Exploratory Factor analyses these assumptions were appropriately met. Homogeneity of variance was tested using linear regression scatterplots which indicated that there was homoscedasticity. Overall, correlation analyses are fitting for this study as it provided insight into the presence or absence of a relationship between the variables along with the strength and direction of these relationships, providing direction for conducting further analyses in this study (Obilor and Amadi, 2018). However, it is important to note that correlation analyses cannot establish temporal precedence and accordingly this statistical analysis cannot establish causality between the studied variables.

Multiple Regression

A multiple regression statistical analysis was performed to answer the research question "To what extent do South African socio-economic stressors and leaders creating hope predict

psychological well-being in South African employees?". This statistical test allowed for further exploration of whether the independent variables (South African socio-economic stressors and leaders creating hope) predicted the dependent variable (psychological well-being) (Field, 2013). The independent variables predict the dependent variables when a significant relationship exists, that is, when the *p* value (alpha) is less than 0.05 (which indicates a significant results) (Field, 2013). The stronger the correlation between the variables, the more accurately the independent variables predict the dependent variable (Bewick et al., 2003). Before conducting this statistical test, various assumptions were first checked which included the normal distribution of the data, ensuring that the variables were at least interval, checking that there were no influential outliers present, having linearity, having independent observations, and having homoscedasticity (Schneider et al., 2010). The data was either deemed normally distributed or transformed (for leaders creating hope as previously discussed) and the variables were measured on a Likert-type scale and were therefore at least interval. Outliers were checked through various boxplots and no influential outliers were found for the various scales and subscales. As previously established when testing the assumptions for the correlation analyses the data was deemed linear through scatterplots and homoscedasticity was also previously established through linear regression scatterplots. Having independent observations was established through the research design of this study as all participants could only complete this questionnaire once. As the assumptions were met a multiple regression analysis was performed which was appropriate for this study as it allowed for, as compared to correlation analyses, a more in-depth exploration of the relationships between the variables through producing a regression model that measured the goodness-of-fit present in this study.

Moderated Multiple Regression

A two-way moderated multiple regression analysis was performed to answer the research question "Does leaders creating hope moderate the relationship between South African socio-economic stressors and psychological well-being in South African employees?". A moderator variable is a variable that interacts with another predictor variable to explain changes in an outcome variable (Aguinis & Stone-Romero, 1997). Moderated multiple regression (MMR) analysis is therefore a statistical test used to assess the effect of the moderator variable and the interaction between the predictor and outcome variables (Field, 2009). Within this study the MMR analysis is a preferable statistical technique as it identifies the moderator effects and

provides further relevant information that correlation coefficients and multiple regression analyses cannot provide (Dawson & Richter, 2006). The MMR analysis within this study therefore provides insight into whether leaders creating hope weakens the effect of the predictor on the outcome variable such that it has a buffering effect between South African socio-economic stressors and psychological well-being (Frazier et al., 2004).

Before the MMR analysis was run various assumptions were checked including all the previously discussed assumptions of a standard multiple regression along with having independence of observations, the moderator variable being continuous, the independent variables being continuous, and the dependent variable being interval (Field, 2013). As previously established the various assumptions of multiple regression analyses were met, including having independence of observations. As all the variables were measured on Likert-type scale the independent, dependent, and moderator variables were all continuous and at least interval. As the various assumptions were met the moderated multiple regression statistical analysis was carried out to assess the potential buffering effects of leaders creating hope between the predictor and outcome variables.

Ethical considerations:

Ethics approval was obtained from the Human Research Ethics Committee (Non-Medical) at the University of the Witwatersrand (clearance protocol number: MAORG/23/01, Appendix A) to carry out this study. Participants were regarded as low risk as the research explores what may be potentially challenging circumstances for individuals through exploring various South African socio-economic stressors. Accordingly, a research participation risk that was potentially present within this study, as outlined by the *CABLES* acronym and metaphor, includes potential affective risks (Koocher, 2002). Affective risks are the potential emotional distress that may be aroused during or after participating in this research (Koocher, 2013). Within this research study this may include risks of self-discovery as questions about the participants' life may be of a sensitive nature. Such information may potentially produce adverse reactions or emotions through reminding or making participants more aware of their socio-economic difficulties and how this may be impacting their psychological well-being. The participant information sheet indicated to potential participants that if they felt such inclinations there are counselling and support services available and that the researcher and their supervisor would be able to provide appropriate information and referrals for suitable counselling services.

The contact details of the researcher and their supervisor were provided on the participant information sheet for contact if any of the respondents had queries or concerns. Nevertheless, no participants contacted the indicated parties for assistance regarding counselling or support services nor for expressing any queries or concerns.

Further important considerations included ensuring anonymity and confidentiality through not collecting any identifying information through the online survey on Google Forms (Gelo et al., 2008). The participant information sheet and the brief invitation of the questionnaire explained the volunteer nature of the study to the respondents and that only consenting individuals will partake in this research study (Appendix E and I). Participants were informed of their right to withdraw from the study at any time if they desired to do so before the completion and submission of the questionnaire. The questionnaire's participant information sheet explained that there are no negative consequences, incentives, or penalties if respondents chose to not partake in this study. The participant information sheet further clearly indicated the nature, purpose, and procedure of this research study. The participant information sheet also stipulated that no individual feedback will be provided to any individual to ensure the anonymity and confidentiality of the participants and the data. Anonymity and confidentiality were further ensured through keeping all responses to the questionnaire in a password protected file for safekeeping with only the researcher and their supervisor having access to the data. These considerations guaranteed that this research study was carried out in an ethical manner that ensured the well-being of the respondents throughout the entire research process.

CHAPTER THREE: RESULTS

Introduction

This results chapter presents an overview of the results obtained from the statistical analyses. Firstly, the descriptive statistics (means, standard deviations, and normality) will be provided, followed by the exploratory factor analyses of the two adapted scales and then the reliabilities (internal consistency) of all the scales used. Thereafter the results of the relationships between the variables will be discussed through first exploring their different required assumptions followed by the results of the inferential statistics (correlation coefficients, multiple regression, and moderated multiple regression).

Descriptive Statistics

Descriptive statistics were used to provide information pertaining to the sample in this study regarding the mean, standard deviations, minimum values, and maximum values (range) of the variables that were regarded as interval. These values, along with the skewness coefficients, kurtosis values, and histograms provided an understanding of the nature of this study's sample along with assessing for normality (Field, 2013). The descriptive statistics are presented in Table 3.1. on the following page

Table 3.1.

Descriptive statistics and skewness and kurtosis coefficients for key variables

Variable	N	Min	Max	Mean	Standard Deviation	Skewness Coefficient	Kurtosis Coefficients
SA Financial Stressors	130	1	5	2.85	0.90	-0.03	-0.60
SA Health Stressors	130	1	5	2.85	1.00	0.07	-0.93
SA Relational Stressors	130	1	5	2.60	0.92	0.29	-0.62
SA Environmental Stressors	130	1.14	5	3.02	0.95	0.03	-0.74
SA Work-related Stressors	130	1	5	3.13	1.06	-0.02	-0.94
SA-SE Stressors Total	130	1.30	4.78	2.91	0.74	0.00	-0.55
PGWB Anxiety	130	0.20	4.60	2.34	1.11	0.11	-0.94
PGWB Depressed Mood	130	0.00	5	3.26	1.19	-0.65	-0.33
PGWB Positive Well-being	130	0.25	4.50	2.30	0.95	0.07	-0.54
PGWB Self-Control	130	0.67	5	3.17	1.11	-0.40	-0.72
PGWB General Health	130	0.67	5	3.09	1.01	-0.40	-0.56
PGWB Vitality	130	0.50	4.75	2.35	0.99	0.02	-0.80
PGWB Total	130	0.86	4.55	2.67	0.90	-0.04	-0.75
Leaders creating hope Total	130	1	5	3.34	1.53	-0.03	-1.26

Key: SA = South African, SA-SE Stressors = South African socio-economic stressors, PGWB = psychological general well-being

As evident from Table 3.1., South African socio-economic stressors had a mean of 2.91 and a standard deviation of 0.74. As lower scores (1) indicate lower levels of stress, high scores (5) indicate higher levels of stress, and scores of “3” indicates a neutral response regarding stress

and worry to stressors the mean and standard deviation therefore indicates that most of the participants felt slightly below agreeable to "neutral" regarding the stress or worry associated with the different South African Socio-economic stressors that they face in their everyday lives. This reveals that the sample had, on average, neutral feelings of stress or worry regarding their experiences of South African stressors to slightly lower levels of worry and stress when experiencing the various stressors.

Psychological general well-being had a mean of 2.67 and a standard deviation of 0.90. As a lower score (0) indicates lower psychological general well-being and a higher score (5) indicates higher psychological general well-being the mean and standard deviation of psychological general well-being signify that the respondents had average to slightly below average levels of psychological general well-being. Grossi and Compare (2012) reported that the mean PGWBI total score reported in studies using American population samples had a mean of 3.64. Accordingly, the respondents for this research study had lower psychological well-being levels compared to populations in previous studies.

Leaders creating hope had a mean of 3.34 and a standard deviation of 1.53. A lower score (1) indicates a strong disagreement with the respondents' leaders creating hope within the respondent while a higher score (6) indicates a strong agreement with the respondents' leaders creating hope within the respondent. The mean (3.34) and standard deviation (1.53) therefore reveals that for leaders creating hope the respondents on average were somewhat disagreeable to somewhat agreeable regarding the levels of their leaders creating hope. This also reveals that the sample had responses where some respondents scored slightly higher indicating that their leaders created hope within them while other respondents scored slightly lower indicating that their leaders were less inclined to creating hope within them.

Additionally, there was a large range regarding the responses of the respondents for each scale. This indicates that some of the respondents did report extreme above or below average levels regarding South African socio-economic stressors, psychological general well-being, and leaders creating hope.

Normality

Normality was assessed to determine whether parametric or non-parametric statistical analyses would be conducted for this research study. According to Table 3.1., the skewness and kurtosis

coefficients indicated that the variables of interest were normally distributed except for leaders creating hope where the kurtosis coefficient (-1.26) fell outside the acceptable range of -1 to 1 and indicated potentially negatively skewed data (Field, 2013). Accordingly, the histograms (Appendix L) and both the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality (Appendix M) were examined specifically for leaders creating hope to assess if there were any issues regarding normal distribution. Although the Depressed Mood and Self-Control subscales for psychological general well-being did present significant results for the tests of normality, along with General Health having a significant result for the Kolmogorov-Smirnov test of normality, their histograms did overall sufficiently approximate normality with their skewness and kurtosis coefficients additionally indicating sufficient normality. Alongside this having a sample size of 130 provided assuredness of normality for these three variables according to the Central Limit Theorem. For all the other variables the tests of normality were not significant, and their histograms approximated normal distribution, signifying that they can be deemed acceptably normal. However, as indicated in Table 3.2. below, the variable leaders creating hope had a statistically significant difference from normality ($p < .001$). this, along with the histogram, which was negatively skewed, indicated that leaders creating hope was not normally distributed.

Table 3.2.

Tests of normality for the variable leaders creating hope

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	*df*	*Sig.*	Statistic	*df*	*Sig.*
Leaders creating hope Total	0.12	130	<.001	0.94	130	<.001

As many of the statistical analyses require the assumption of normality to be met the data for leaders creating hope was transformed using log transformations (making use of the reflected data for leaders creating hope as the data was negatively skewed). after transforming the data for leaders creating hope the histogram was slightly negatively skewed however the histogram (Appendix L) was less skewed than before and therefore did sufficiently approximate normality. Additionally, the skewness and kurtosis coefficients fell within the range of -1 and 1 as seen the Table 3.3. below. This transformation of the data, along with having a sample size of 130 which provided some assuredness of normality according to the Central Limit Theorem,

signified that the data was deemed sufficiently normally distributed for the various statistical analyses that were to be conducted (Field, 2013).

Table 3.3.

Descriptive statistics and skewness and kurtosis coefficients for transformed variables

Variable	N	Min	Max	Mean	Standard Deviation	Skewness Coefficient	Kurtosis Coefficients
Leaders creating hope Total	130	0	0.78	0.47	0.24	-0.67	-0.72

Exploratory Factor Analysis

Before the various statistical analyses were conducted the factor structure of the adapted South African Socio-Economic Stressors scale and the adapted Leaders Creating Hope scale were determined. This allows for the construct validity of the scales to be established as, to the researcher's knowledge, neither scale had been used in the South African context before especially as they had been adapted for this research study (Field, 2013). Before the exploratory factor analysis (EFA) could be conducted various assumptions had to be checked and met.

Testing for Factorisability

Testing for suitability for reduction was tested through Bartlett's test of sphericity for both scales. The test was significant for both leaders creating hope ($\chi 2$ (15) = 920.58, $p < 0.001$) and South African socio-economic stressors ($\chi 2$ (351) = 1637.98, $p < 0.05$) signifying that the data was suitable for reduction and was therefore factorisable.

Testing the Assumptions

Before the EFA could be conducted the assumptions regarding interval data, normality, multicollinearity, singularity, sample size, outliers, and linearity had to be met. As the data for both the Leaders Creating Hope scale and South African Socio-economic Stressors scale were measured on Likert scales the data for both scales are therefore measured on an interval scale

of measure. Normality of the data was previously discussed and established in section 3.3. Accordingly, the assumptions for interval data and normality were met.

Multicollinearity and Singularity

Bartlett's Test of Sphericity was conducted to assess whether there was multicollinearity for both the Leaders Creating Hope scale and the South African Socio-economic Stressors scale. For the South African Socio-economic Stressors scale the results was significant ($X^2(351) = 920.58$, $p < .001$) and the results for the Leaders Creating Hope scale were also significant ($X^2(15) = 1637.98$, $p < .001$). This indicates that for both scales there was sphericity within the data and that there is a difference between the correlation and identity matrices for both scales. As Bartlett's Test of Sphericity was significant for both scales there was no multicollinearity evident within the data. Along with not having exceptionally high correlation coefficient points (multicollinearity) there was no singularity of data evident in each scale's respective correlation matrix as there were no perfect correlations of one. Accordingly, both assumptions were met for both scales.

Outliers

Outliers were assessed using boxplots for both the Leaders Creating Hope scale and the South African Socio-economic Stressors scale (Appendix N). No outliers were identified for either scale indicating that this assumption was met for both scales.

Linearity

Linearity for both scales were tested through scatter plots (Appendix O). The scatter plots show that the data is approximately linear with either a moderate or moderately strong negative or positive linear relationship with the respective variables. Accordingly, the assumption regarding linearity was met.

Sample Size

There are different guidelines regarding what a sufficient sample size would be for conducting an Exploratory Factor Analysis. Field (2013) specifies that a sample size of 100 is poor but

useable while other authors like Kline (1994) stipulate that there should be a minimum of 3 individuals per item of the scale being assessed for EFA. Both scales have a sample size of 130 when considering Field's (2013) requirements indicating that the sample size is slightly substandard but nevertheless sufficient for the purpose of this research study. Moreover, the Leaders Creating Hope scale has a total of 6 items while the South African Socio-Economic Stressors scale has a total of 27 items and with having a sample size of 130 they both met Kline's (1994) sample size requirements by some margin. Furthermore, the Kaiser-Myer-Olkin (KMO) measure of sampling adequacy for the Leaders Creating Hope scale was 0.93 while the South African Socio-Economic Stressors scale was 0.83 which is greater than 0.5 which signifies that the sampling was adequate to conduct exploratory factor analyses for both scales (Kaiser, 1970; Williams et al., 2010). As all the required assumptions were met the EFA could be conducted for both the Leaders Creating Hope scale and the South African Socio-Economic Stressors scale using a varimax rotation.

Exploratory Factor Analysis for the Leaders Creating Hope scale

As the adapted Leaders Creating Hope scale has not been widely used within the South African context it was necessary to conduct an EFA to determine what the factor structure of this scale was as evident within the current sample. Table 3.4. below indicates that one factor was to be retained for this scale.

Table 3.4.

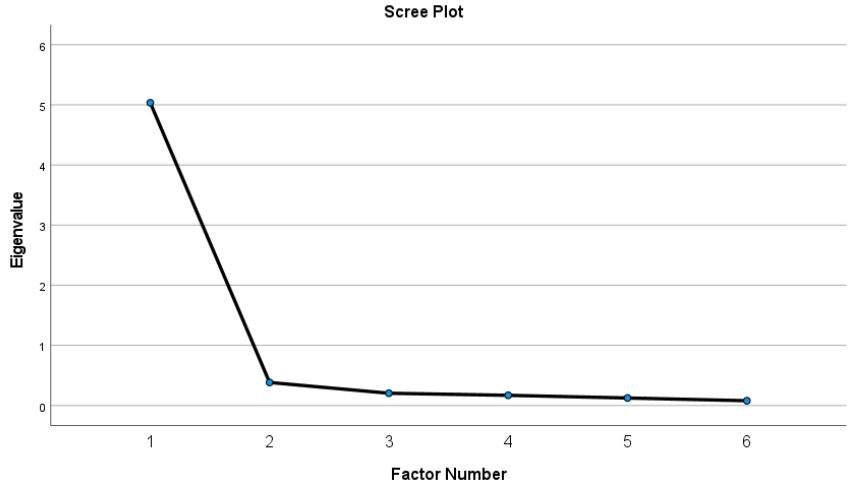
Eigenvalues and proportion of variance explained for the Leaders Creating Hope scale

	Eigenvalues	Proportion of Variance
Factor 1	5.04	83.93

One factor was extracted based on the guidelines that eigenvalues must be greater than one (Kaiser, 1970). This factor accounted for a large portion of variance (83.92%). This is further affirmed by the corresponding scree plot on the following page (Figure 1).

Figure 1

Exploratory Factor Analysis scree plot for the Leaders Creating Hope scale



The scree plot for this scale supports extracting one factor for this scale. Therefore, based on the scree plot, eigenvalues, and proportion of variance, one factor was extracted. Overall, the EFA supported a one factor structure for the Leaders Creating Hope scale.

Exploratory Factor Analysis for the South African Socio-Economic Stressors scale

Like the previous scale, the South African Socio-Economic Stressors scale has not been widely used within the South African context. Accordingly, it was necessary to also conduct an EFA on this scale to determine what the factor structure of this scale was as evident within the current sample. Table 3.5. on the following page indicates that seven factors are to be retained for this scale.

Table 3.5.

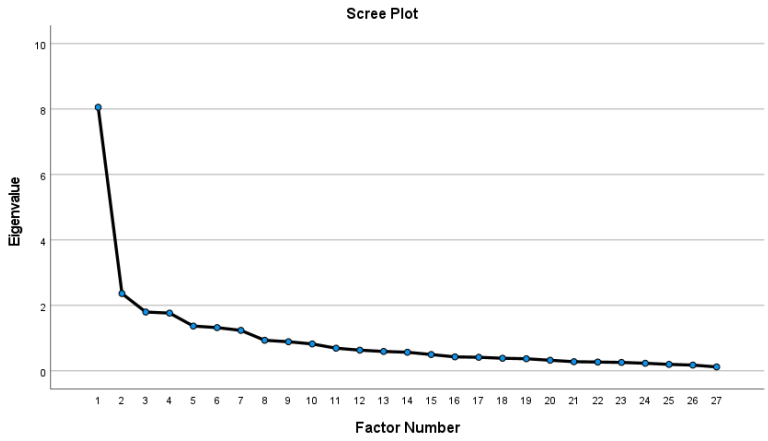
Eigenvalues and proportion of variance explained for the South African socio-economic stressors scale

	Eigenvalues	Proportion of Variance
Factor 1	8.05	29.83
Factor 2	2.36	38.58
Factor 3	1.80	45.24
Factor 4	1.77	51.78
Factor 5	1.40	56.85
Factor 6	1.32	61.74
Factor 7	1.24	66.79

Seven factors were extracted in accordance with the guidelines that eigenvalues must be greater than one (Kaiser, 1970). The different factors accounted for different portions of variance with factor seven accounting for the largest portion of variance (66.79%). The extraction of seven factors is further confirmed by the scree plot below (Figure 2).

Figure 2

Exploratory Factor Analysis scree plot for the South African Socio-Economic stressors scale



The scree plot for this scale show that the plot started to flatten out at factor number 8. Accordingly, this scree plot confirms that seven factors should be extracted for this scale as

stipulated by the corresponding eigenvalues and proportion of variance. Table 3.6. below demonstrates how these factors were extracted.

Table 3.6.

Results from an Exploratory Factor Analysis of the South African socio-economic stressors scale

South African socio-economic stressors Items	Factor Loading						
	1	2	3	4	5	6	7
Factor 1 – Work-related stressors							
24.	**0.74**						
23.	**0.67**			0.32			
25.	**0.66**						
26.	**0.61**						
4.	**0.49**						
Factor 2 – Threat-to-security stressors.							
16.		**0.83**					
15.		**0.68**					
18.		**0.67**					
Factor 3 – Environmental stressors							
20.			**0.84**				
19.			**0.71**				
21.			**0.55**				
17.		0.39	**0.45**				
Factor 4 – Stressors impacting health							
22.				**0.67**			
9.			0.29	**0.52**			
6.				**0.47**			0.34
27.				**0.47**			
13.				**0.46**			
8.		0.38		**0.41**			0.38
Factor 5 – Financial stressors							
2.					**0.85**		
1.					**0.85**		
3.					**0.57**		
Factor 6 – Relational stressors							
11.						**0.69**	
14.						**0.57**	
10.						**0.56**	
12.						**0.41**	
Factor 7 – Stressors related to accessing assistance							
7.							**0.64**
5.							**0.56**

Note: *N*=130. The extraction method was principal axis factoring with a varimax rotation. Factor loadings onto the primary factor are in bold.
Key: Item 1=Having enough money to cover basic needs; Item 2= The cost of food; Item 3=Having enough food to eat; Item 4= Needing financial help from someone I know; Item 5= Accessing unemployment benefits; Item 6= Having to deal with a physical illness or mental health problems; Item 7= Not being able to access healthcare; Item 8= Being limited in my daily activities due to chronic illness or disability; Item 9= Thinking too much/ overthinking; Item 10= Having to deal with conflict with family members; Item 11= Having to deal with conflict with friends; Item 12= Having to deal with conflict with colleagues in the workplace; Item 13= Being alone, without friends; Item 14= Feeling unsafe around family members, friends or colleagues; Item 15= Feeling unsafe around family members, friends or colleagues; Item 16= Being the victim of theft or burglary; Item 17= My family member's or friend's safety; Item 18= Losing a family member or friend to violence; Item 19= The corruption and injustices I face in my daily life; Item 20= Socio-political conditions in my society and country; Item 21= Load shedding affecting my productivity and livelihood; Item 22= My job; Item 23= Potentially losing my job; Item 24= Not having a job; Item 25= Having to look for a job; Item 26= Seeing my work conditions deteriorate; Item 27= My workload being more than I can handle.

As seen in Table 3.6. all the primary loadings onto the different factors were what Comrey and Lee (1992) could describe as excellent (>0.70) to fair (>0.45) factor loadings. Nevertheless, the factor structure was not line agreement with what the researcher initially deemed the factor structure of this adapted scale to be where items 1 to 5 formed the first factor (Financial stressors), items 6 to 9 formed the second factor, (Health-related stressors), items 10 to 14 formed the third factor (Relational stressors), items15 to 21 formed the fourth factor (Environmental stressors) and items 22 to 27 formed the fifth factor (Work-related stressors). This difference in factor structure indicated by the EFA may be attributed to the researcher's choice of wording for the different items which may have led to errors regarding the initial hypothesised factor structure. Moreover, upon inspection the primary loadings of the items onto the different factors were understandable and therefore acceptable. Accordingly, the factor structure of this scale was established, and the internal consistency reliability of each instrument could be measured.

Internal Consistency Reliability

To assess the internal consistency reliability of the scales used within this research study Cronbach Alpha coefficients were calculated for the subscales and total scales for South African socio-economic stressors, psychological general well-being, and leaders creating hope as shown in Table 3.7. on the following page.

Table 3.7.

Cronbach alpha coefficients for the scales and subscales of South African socio-economic stressors, general psychological well-being, and leaders creating hope

Scale	Items	Cronbach Alpha ($\boldsymbol{\alpha}$)
SA Work-related stressors	5	0.84
SA Threat-to-security stressors	3	0.81
SA Environmental stressors	4	0.80
SA Stressors impacting health	6	0.79
SA Financial stressors	3	0.80
SA Relational stressors	4	0.71
SA Stressors related to accessing assistance	2	0.62
SA-SE Stressors Total	27	0.91
PGWB Anxiety	5	0.88
PGWB Depressed Mood	3	0.85
PGWB Positive Well-being	4	0.86
PGWB Self-Control	3	0.72
PGWB General Health	3	0.69
PGWB Vitality	4	0.84
PGWB Total	22	0.95
Leaders Creating Hope Total	6	0.96

Key: SA = South African, SA-SE Stressors Total = South African socio-economic stressors, PGWB = psychological general well-being

As presented within the above table the scales and subscales present satisfactory to excellent internal consistency ($\boldsymbol{\alpha}$ = 0.62 and above) signifying that the scales used had overall good to

excellent internal consistency reliability within the sample were suitable to use (Murphy & Davidshofer, 2005). The subscales of SA Stressors related to accessing assistance ($\boldsymbol{\alpha}$ = 0.62) and PGWB General Health ($\boldsymbol{\alpha}$ = 0.69) did yield a Cronbach Alpha slightly below the moderate internal consistency of $\boldsymbol{\alpha}$ =0.7. However, regardless of these subscales presenting low to moderate reliabilities the Cronbach Alphas for each overall scales did present excellent internal consistency reliability and removing the respective items did not significantly improve the Cronbach Alpha for each overall scale. Accordingly, these scales were deemed useful for this research study for theoretical purposes and were considered acceptable to use. As such, the scales and subscales were found to have overall good to excellent internal consistency reliability within the sample and were considered suitable to use for this research study.

Correlation Coefficients

To assess which correlational statistical analyses (parametric or non-parametric) would be used to assess whether there were relationships between South African socio-economic stressors, psychological general well-being and leaders creating hope parametric assumptions were assessed.

Testing the assumptions

The assumptions included testing for normality, having no significant outliers, having interval data, having random and independent sampling, the data being linear, having an adequate sample size, and having homogeneity of variance. As previously discussed, the data was deemed sufficiently normally distributed, the data was measured on a Likert-type scale for all three instruments and is therefore interval, and this research had random and independent sampling. Linearity was also previously established for the three instruments when assessing the required assumptions for the exploratory factor analysis.

Outliers

As previously discussed in the exploratory factor analysis section the data for leaders creating hope and South African socio-economic stressors did not have any significant outliers. Testing for significant outliers for psychological general well-being was conducted through boxplots

(Appendix P). No outliers were identified indicating that this assumption was met for all three instruments.

Homogeneity of Variance

Homogeneity of variance was tested using linear regression scatterplots (standardised and residual) with results indicating that there was homoscedasticity (with little variation present) (Appendix Q). As there was an equal variance across the levels of the independent variables this assumption was also met.

Pearson's Correlation Coefficient

As all the assumptions required to conduct the parametric correlational statistical analyse were met Pearson's Correlation Coefficient was used to assess the relationships between South African socio-economic stressors, psychological general well-being and leaders creating hope. this allowed for the assessment of the strength and direction (positive or negative) of the relationships among the three variables.

The relationship between South African socio-economic stressors and psychological well-being

To answer the research question "Does South African socio-economic stressors relate to psychological general well-being?" (to establish whether there is a relationship between the two variables) the parametric Pearson's correlation coefficient was used. Table 3.8. on the following page describes the correlations among the variables of South African socio-economic stressors and psychological general well-being.

Table 3.8.

Pearson's correlation coefficients for South African socio-economic stressors and psychological general well-being scales and subscales

Variable	Anxiety PGWB	Depressed Mood PGWB	Positive well-being PGWB	Self-control PGWB	General Health PGWB	Vitality PGWB	PGWB Total
SA Work-related stressors	-.45**	-.52**	-.48**	-.48**	-.39**	-.39**	-.53**
SA Threat-to-security stressors	-.18*	-.24**	-.21*	-.20*	-.26**	-.14	-.24**
SA Environ. stressors	-.36**	-.41**	-.34**	-.31**	-.41**	-.37**	-.43**
SA Stressors impacting health	-.55**	-.61**	-.55**	-.54**	-.60**	-.48**	-.65**
SA Financial stressors	-.12	-.23**	-.14	-.22*	-.15	-.10	-.18*
SA Relational stressors	-.34**	-.44**	-.38**	-.44**	-.41**	-.37**	-.46**
SA Stressors RAA	-.20*	-.40**	-.26**	.34**	-.31**	-.20**	-.32**
SA - SE Stressors Total	-.50**	-.62**	-.53**	-.55**	-.55**	-.46**	-.63**

Key: * $p < 0.05$ (2-tailed); ** $p < 0.01$ (2-tailed); SA Environ. Stressors=SA Environmental Stressors; SA Stressors RAA=SA Stressors related to accessing assistance; SA – SA Stressors Total=South African Socio-economic Stressors Total; PGWB=Psychological General Well-being.

Note: N=130

As seen in Table 3.8. the subscales "South African Threat-to-security stressors" had mostly significant negative relationships with the other psychological general well-being subscales and scales, however, these relationships presented some very weak correlations (Evans, 1996). Similarly, the "South African Financial stressors" had some significant negative relationships

with the other psychological general well-being subscales and scales however it too presented some very weak correlations along with some non-significant negative relationships. This is further confirmed through their coefficient of determination (r^2) overall being less than 0.10 ($r^2 < 0.07$) which indicates rather low effect sizes.

Nevertheless, the rest of the psychological general well-being variables present significant negative relationships with the various SA stressors with "South African stressors impacting health" and the overall South African socio-economic stressors variable having moderately negative correlations with all the general psychological well-being scales ($r < 0.65$; $p < 0.01$) except for the PGWB vitality subscale. It is also noted that South African work-related stressors have a significant, negative, and moderate relationship with PGWB depressed moods and overall psychological general well-being which signifies that as South African work-related stressors increase the depressed moods will increase while the overall general well-being of South African individuals will decline. This is further affirmed by the coefficient of determination (r^2) of the various variables ranging between 0.25 and 0.425 which indicates a moderate effect size for these variables. This implies that South African stressors impacting health and overall South African socio-economic stressors explain between 25% to 42.5% of the variability in the psychological general well-being of South Africans.

For the rest of the psychological general well-being variables there were low, significant, and negative relationships through having low negative correlations for specifically most of the SA work-related stressors, SA environmental stressors, SA relational stressors, and some of the SA stressors related to accessing assistance ($r < 0.48$; $p < 0.01$). The coefficient of determination (r^2) further affirms this by ranging between 0.10 and 0.24 which indicates a low effect size for these variables' relationships. This implies that SA work-related stressors, SA environmental stressors, SA relational stressors, and SA stressors related to accessing assistance explain between 10% to 24% of the variability of the psychological general well-being of South Africans.

The relationship between leaders creating hope and psychological well-being

To answer the research question "Does leaders creating hope relate to psychological general well-being?" (to establish whether there is a relationship between the two variables) the parametric Pearson's correlation coefficient was used. Table 3.9. below depicts the correlations among the variables of leaders creating hope and psychological general well-being.

Table 3.9.

Pearson's correlation coefficients for leaders creating hope and psychological general well-being scales and subscales

Variable	Leaders creating hope
Anxiety PGWB	.18*
Depressed Mood PGWB	.26**
Positive well-being PGWB	.30**
Self-control PGWB	.14
General Health PGWB	.17
Vitality PGWB	.23**
PGWB Total	.25**

Table 3.9. indicates that leaders creating hope had statistically significant positive relationships with the anxiety, depressed mood, positive well-being, and vitality subscales of psychological general well-being (Evans, 1996). Leaders creating hope also had a statistically significant positive relationship with the overall psychological general well-being scale. Leaders creating hope did not present a statistically significant relationship with either the self-control or the general health subscales of PGWB. The positive relationships present between the variables of interest do present very weak to weak relationships however they are statistically significant ($r < 0.3$; $p < 0.05$). The coefficient of determination (r^2) of the various relationships ranged between 0.04 and 0.09 (rounded to 0.1) which highlights a negligible to low effect size for the different variables' relationships. This implies that leaders creating hope impacting the various subscales and scale of PGWB explains about 4% to 10% of the variability in the psychological general well-being of South African employees.

Although some of the effect sizes of the South African socio-economic stressor scales were somewhat stronger in their effect size as compared to the leaders creating hope it was deemed appropriate to conduct a multiple regression analysis using the two variables as predictors as they both presented significant (positive or negative) relationships with PGWB. This would

allow for further assessment of their relationship with PGWB for the purposes of this research study. For this analysis only the total scales were used so that this research study could calculate the potential overall impact of the predictor variables, South African socio-economic stressors and leaders creating hope, on PGWB.

Multiple Regression Analysis

To further assess the effect of both South African socio-economic stressors and leaders creating hope on psychological general well-being (to answer the research question "Does South African socio-economic stressors and leaders creating hope predict the psychological general well-being of South African employees?") a Multiple Regression analysis was conducted. Before carrying out the Multiple Regression the various assumptions required for this analysis were assessed.

Testing for assumptions

The assumptions included having a dependent variable that is continuous, having independent variables that are measured on either a continuous or categorical scale, having independence of observations, having normally distributed residuals, having linearity, having homoscedasticity, not having multicollinearity, and having no significant outliers, high leverage points nor highly influential points. As previously discussed, when testing the assumptions for using Pearson's correlation coefficients it was established that the dependent variable (PGWB) is continuous (as it is measured on a Likert-type scale), the independent variables (South African socio-economic stressors and leaders creating hope) are continuous (they too are measured on Likert-type scales), and linearity was previously established for the three variables. It was further established that the three variables did not have any significant outliers, that there was homoscedasticity present for the three variables, and that there was independence of observations as all individuals could only fill out the questionnaire once (by design of the research study this assumption is met).

Multicollinearity

Multicollinearity was assessed through examining the correlations between the independent variables along with examining the collinearity statistics of tolerance values and VIF statistics

for the independent variables. Through using Pearson's correlation coefficient it was evident that there was no statistically significant relationship between South African socio-economic stressors and leaders creating hope (r = -.150; p = .09). The Tolerance values for both independent variables were 0.98, which is greater 0.2, and the VIF statistic was 1.02, which is less than 10 (Field, 2013). Accordingly, there is no evident multicollinearity and this assumption has been met.

No significant outliers, High Leverage points or highly influential points

To further assess whether there were any outliers the standardised residuals were examined. There were no standardised residuals greater than -3 nor +3 (with the highest values being 2.48749 and the lowest values being -2.04) indicating that there are no significant outliers (Field, 2013). As there are two predictors in this research study the Mahalanobis' Distance ought to be less than 13.82 to assess whether there are any significant outliers or highly influential points. As the highest Mahalanobis' Distance value was 8.46 it can be concluded that there are no significant outliers nor any highly influential points in this research study. As the highest value for Cook's Distance was 0.07 it can be further affirmed that there are no significant outliers nor any highly influential points (as the Cook's Distance value was less than 1). When using the Centred Leverage Value the cut-off to determine whether there are any high leverage points was calculated using the equation (k+1)/n where k is the number of independent variables and the answer of the equation is multiplied by 3. Accordingly, the cut-off for the Leverage value for this study was calculated as 0.07. As the highest Leverage value was 0.07 there were no high leverage points in this research study and the assumption of not having significant outliers, highly influential points, nor high leverage points was met.

Normally distributed residuals

The normal distribution of the residual values for the model was assessed using a histogram of the standardised residuals which indicated a normal distribution of the residual values (Appendix R).

The relationship between South African socio-economic stressors and leaders creating hope with psychological well-being

As all the assumptions required to conduct this statistical analysis were met a Multiple Regression was used to assess whether the independent variables South African socio-economic stressors and leaders creating hope predicted psychological general well-being within South African employees. This allowed for a further in-depth assessment of the relationship of the independent variables with the dependent variable as outlined in Table 3.10. below.

Table 3.10.

Results of Linear Multiple Regression Analysis

Model	*R*	R^2	Adjusted R^2	*SE*	*F*	*df*	*Sig.*
1	.65[a]	.42	.41	.69	45.38	2,127	<.001

a. Predictors: (Constant), South African socio-economic stressors, leaders creating hope

Variable	Beta	*SE*	95% CI		*t*	ß	*p*
			LL	*UL*			
South African socio-economic stressors	-.73	.08	-.90	-.57	-8.77	-.60	<.001
Leaders creating hope	.61	.26	.10	1.11	2.37	.16	<.05

The dependent variable (PGWB) was regressed on the predicting variables of South African socio-economic stressors and leaders creating hope. The independent variables significantly predicted PGWB, F (2,127) = 45.38; $p < .001$, which indicates that both South African socio-economic stressors and leaders creating hope have a significant impact on PGWB. This further indicates that the model assessed is significant. The adjusted $R^2 = .408$ implies that the model explains 41% of the variance in PGWB. Using Cohen's f^2 the effect size is therefore 0.72 which, being greater than 0.35, is a large effect size (Field, 2013).

The regression coefficients were further assessed to determine the influence of each of the factors on the criterion variable (PGWB). The results indicated that South African socio-

economic stressors has a significant and negative effect on PGWB (B = -.73, t = -8.77, p < .001). Accordingly, there was support for South African socio-economic stressors being a significant negative predictor of PGWB levels, indicating that South African employees with higher scores on the South African socio-economic stressors scale were expected to have lower psychological general well-being levels after controlling for the other variable in the model. Moreover, the results show that leaders creating hope has a significant positive effect on PGWB (B = .61, t = 2.37, p < .05). leaders creating hope therefore is a significant positive predictor of PGWB levels which implies that South African employees with higher scores of leaders creating hope were expected to have higher psychological general well-being levels when controlling for the other variable. Consequently, there is sufficient evidence that indicates that both South African socio-economic stressors and leaders creating hope predict PGWB.

Moderated Multiple Regression Analysis

To answer the research question "Does leaders creating hope moderate the relationship between South African socio-economic stressors and psychological general well-being?" a moderation analysis was conducted (using the Process Procedure for SPSS by Hayes (2013)). Moderation was therefore used to assess whether the key variable leaders creating hope would moderate the relationship between South African socio-economic stressors and psychological general well-being through either affecting the direction or strength of their relationship (Field, 2013). This was achieved through exploring the interaction of the variables (the combined effect of the independent variable and the moderator) on the dependent variable. Before the moderation analysis could be conducted various assumptions had to be assessed.

Testing the assumptions

The assumptions required for moderation analysis include all the assumptions of a standard multiple regression (as previously discussed and established) along with having one dependent variable that is measured on a continuous level, having independent variables that are continuous, the moderator variable being continuous or dichotomous, and having independence of observations (residuals) (Field, 2013). As previously discussed, all the assumptions of a multiple regression analysis were met. The dependent variable, psychological general well-being, is measured on a Likert-type scale and is therefore interval (measured on a continuous

level). Both the independent variable and the moderator variable are also measured on a Likert-type scale and are therefore interval. Independence of observations (residuals) was also previously established. Accordingly, all the required assumptions to carry out a moderation analysis was met.

Moderation Analysis

As all the assumptions required to conduct this statistical analysis were met a Moderation Analysis was used to assess whether leaders creating hope moderates the relationship between South African socio-economic stressors and psychological general well-being within South African employees. The assessment of the relationship among the outlined variables are presented in the Table 3.11. on the following page.

Table 3.11.

Results of Moderation Analysis

Model	*R*	R^2	Adjusted R^2	ΔR^2	*SE*	*F*	*df*	*Sig.*
1	.65[a]	.42	.41	.42	.69	45.38	2,127	<.001
2	.65[b]	.42	.41	.00	.69	.92	1,126	.34

a. Predictors: (Constant), South African socio-economic stressors, leaders creating hope
b. Predictors: (Constant), South African socio-economic stressors, leaders creating hope, interaction

Model 2's Variables	Beta	*SE*	95% CI		*t*	ß	*p*
			LL	*UL*			
South African socio-economic stressors	-.76	.08	-.89	-.56	-8.65	-.60	<.001
Leaders creating hope	.65	.26	.13	1.16	2.49	.17	<.05
Interaction	-.32	.34	-.98	.34	-.96	-.07	.34

Key: Interaction = South African socio-economic stressors*Leaders creating hope

The Main Effects

The main effects, as indicated in the tables above, were previously established when conducting the multiple regression analysis. When psychological general well-being (PGWB) was regressed on the predicting variables of South African socio-economic stressors and leaders creating hope the independent variables significantly predicted PGWB, F (2,127) = 45.38; $p <$ .001, which indicated that Model 1 is significant. As previously concluded this significant model explains 41% of the variance in PGWB which is a large effect size. It was concluded that South African socio-economic stressors had a significant negative main effect while leaders creating hope had a positive main effect on levels of psychological general well-being in South African employees.

The combined effects of South African socio-economic stressors and leaders creating hope

To test whether leaders creating hope moderates the relationship between South African socio-economic stressors and psychological general well-being a moderation analysis was conducted. The two variables included (the main effects), as previously discussed, accounted for a significant amount of variance in psychological general well-being, adjusted R^2 = .408, F (2,127) = 45.38, p <.001. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centred and an interaction term between South African socio-economic stressors and leaders creating hope was created (Aiken & West, 1991). As evident in the second model the change between the two models was not significant as the following was indicated for Model 2 as seen in the above tables, ΔR^2 = .00, ΔF (1, 126) = .92, b = -.32, t (126) = -.96, p = .34. As the change between the two models was not significant the interaction term consequently is not a significant predictor of psychological general well-being. This implies that leaders creating hope does not moderate the relationship between South African socio-economic stressors and psychological well-being. As the interaction was not significant simple slope analyses were not assessed.

CHAPTER FOUR: DISCUSSIONS

Introduction

Stress, psychological well-being, leadership, and hope have been popular topics within research for a lengthy period (Kaminer et al., 2018; Charles et al., 2013; Newbert, 2007; Richardson et al., 2011; Atwoli et al., 2013). Research continues to explore the relationships between stress, psychological well-being, hope, and leadership with emphasis being placed on the importance of leaders finding and utilising ways of aiding their workforce within adverse circumstances (Shorey & Snyder, 2004). Within the South African context there are numerous stressors impacting employee psychological well-being as our society continues to struggle with socioeconomic inequalities, corruption, poor service delivery, and interpersonal violence, among other rampant stressors (Shaw, 2002; Bollen et al., 1999; Abrahams et al., 2006). To overcome such adversities one can explore positive organisational behaviour and psychological capital research which have presented various resources that may aid in elevating employees' well-being including hope. Hope, as defined in the present study, comprises two components - agency (goal-directed energy) and pathways (planning to meet goals) (Snyder, 2002), and these have been shown to assist employees when stressors impact their psychological well-being (Avey et al., 2009; Avey et al., 2010; Luthans et al., 2004; Luthans et al., 2008; Youssef-Morgan & Luthans, 2015). Along with psychological literature highlighting the importance of hope for individuals, research further indicates that it is a resource that organisations can build (Appollis, 2010; Beal et al., 2013). Research and leadership experts further suggest that one of the key functions of organisational leaders is to create hope within their workforce (Barkhuizen & Du Plessis, 2012; Luthans et al., 2008). However, little research has explored how leaders creating hope resources may aid employees who have deteriorating psychological well-being, as evident within South Africa's stressor-riddled context. This limited research, particularly within South Africa, presents the need to explore novel ways of elevating employees' psychological well-being for both individual and organisational benefits. Furthermore, as leaders are key within organisations research ought to explore the various ways that leaders may assist their employees through hope resource development within the challenging South African context.

Consequently, the aim of this research was to establish whether there were relationships between psychological well-being, South African socio-economic stressors, and leaders creating hope in a sample of 130 employees working within South Africa. This research was particularly focused on identifying whether leaders creating hope could moderate and therefore be an effective buffer between South African socio-economic stressors and psychological well-

being. As previous research has alluded to the potential of leaders to create hope (Shorey and Snyder, 2004; Luthans and Avolio, 2003; du Plessis and Barkhuizen, 2012) this study aimed to explore such relationships and buffering effects within the South African context where employees constantly encounter various stressors. The results of the analyses to test these relationships were presented in chapter 3. This current chapter will discuss the psychometric properties of the scales, the results of the analyses along with their theoretical and practical implications, the strengths and limitations of this present study, and possible recommendations and directions for future research. I will argue that even though a moderating effect was not found the significant results of the statistical analyses and the direct effects of the moderation analysis indicate the potential of leaders to create hope resources within their employees. It will therefore be proposed that such possibilities present important implications for organisations and their leaders within the South African context.

Psychometric properties of the scales

Exploratory Factor Analysis

Before addressing the research questions of this study, it was necessary to first explore the psychometric properties of the instruments used. As previously noted, the adapted South African Socio-Economic Stressors scale and the adapted Leaders Creating Hope scale were not, to the researcher's knowledge, previously used. Therefore, an exploratory factor analysis was conducted for each scale to assess their construct validities and factor structures as evident within the current sample (Field, 2013).

For the South African Socio-Economic Stressors scale the results of the factor analysis demonstrated that seven factors were to be retained for this scale. This did not align with the initial hypothesised factor structure of having five factors for this adapted scale. However, the rotated factor pattern for the South African Socio-Economic Stressors scale indicated that the different primary loadings of the items onto the seven different factors were logical (Kaiser, 1970). Accordingly, there were seven stressors that were explored within this study (work-related, threat-to-security, environmental, health-related, financial, relational, and stressors related to accessing assistance) regarding South African socio-economic stressors. A different factor pattern being found for this scale can be attributed to there being a greater variation of stressors evident within South Africa that were not considered before conducting the exploratory factor analysis (Atwoli et al., (2013; Kaminer et al., 2018). This may be a result of

South Africa's cultural variations as additional factors may be considered relevant within the specific South African context which impacted the factor pattern outcome (Ribeiro & Fleith, 2018). It is also possible that a different factor pattern can be an outcome of the researcher's wording of the items which may have led to a different hypothesised factor structure for this study. Overall, a one factor solution was viable. When conducting the correlation analyses the overall scales and their corresponding subscales were used while only the overall scales were used for both the multiple regression and moderation analyses.

The factor analysis for the Leaders Creating Hope scale indicated that there was one factor to be retained. This was acceptable as it was hypothesised that, in accordance with principal component analysis, that there would not be much variance among the six items used for this scale (Kaiser, 1970). This hypothesis was derived from the factor structure of the scale used to create the adapted Leaders Creating Hope scale, which was Luthans et al.'s (2007) hope subscale from their Psychological Capital Questionnaire (PCQ). As Luthans et al.'s (2007) hope subscale had one retained factor it was understood that the adapted Leaders Creating Hope scale would similarly have one retained factor. Consequently, when exploring the relationship between Leaders Creating Hope and Psychological Well-Being only the overall Leaders Creating Hope scale was used.

Key Variables

Prior to exploring the relationships between the key variables descriptive statistics and histograms were used to determine the levels of psychological well-being, the experiences of South African socio-economic stressors, and the extent to which leaders created hope within the sample obtained.

The scores for South African socio-economic stressors revealed that the sample had, on average, neutral feelings of stress or worry associated with the different stressors presented in the South African Socio-Economic Stressors scale as the mean was 2.91 with a standard deviation of 0.74. This was further evident as 44% of the sample scored between 2.5 and 3.5 revealing that 44% of the sample had slightly below to slightly above neutral feelings of stress or worry towards the South African stressors that they experienced. Moreover, only 10.77% of the sample scored below 2 (more disagreeable) while only 5.38% scored above 4 (more agreeable) which reveals that 16.15% of the sample reported extreme high or low feelings of stress regarding the stipulated South African stressors.

Levels of psychological general well-being were slightly above average as the mean of the sample was 2.6741 with a standard deviation of 0.898. This was further evident as 68.46% of the sample's scores ranged between 1.5 and 3.5 for psychological general well-being which indicates that majority of the sample had slightly below to slightly above average levels of psychological general well-being. Only 32.3% of the sample experienced extreme high or low levels of psychological general well-being when they responded to the questionnaire as 13.07% of the sample scored below 1.5 while only 19.23% of the sample scored above 3.5 for psychological general well-being.

It was surprising to find that 44% of the sample, on average, have neutral feelings of stress or worry associated with South African stressors as this study was carried out within the adverse South African context. The well-being levels obtained were further unexpected findings for this study as 68.46% of the sample had slightly below to slightly above average levels of psychological general well-being (rather than lower scores for well-being). Both findings were considered unusual as research has continuously highlighted the deteriorating effects that stressors and constant exposure of stressors have on the psychological well-being of individuals (Charles et al., 2013; Slone and Hallis, 1999; Huddy and Feldman, 2011; Morgan et al., 2011). As previously discussed, South Africa is permeated with numerous stressors such that Kaminer et al. (2018) labelled South Africa as a context presenting continuous traumatic stress for individuals. As there are numerous stressors that South African individuals encounter daily it was expected that the prolonged exposure to these stressors would have produced greater levels of worry associated with these stressors and have greater negative implications for their reported psychological well-being levels (Pearlin et al. 2005; Turner, 2013; Vega and Rumbaut 1991). Nevertheless, this study found that South Africans had on average neutral feelings of stress or worry associated with the various stressors along with corresponding average levels of psychological well-being.

There are various approaches to explore such unexpected findings including Lazarus and Folkman's (1984) transactional theory of stress and coping. This theory states that the impact of stressors on an individual's well-being is determined by how that individual cognitively appraises the stressor. From this theory it is proposed that differences in cognitive appraisals of stressors by South Africans could be potentially different from what was originally hypothesised. It is therefore possible that in their primary appraisal of stressors South Africans may have not appraised the stressors as extremely challenging or detrimental, but potentially more as a daily hassle (nuisance). It also probable that during their secondary appraisal of the

stressors South Africans regulated stressful transactions through Lazarus and Folkman's (1980) two broad coping styles (which are heavily contextual). For example, individuals may possess coping styles that were not explored in this research study which resulted in lower levels of stress or worry when exposed to the South African stressors. This could include Lazarus and Folkman's (1980) problem-focused coping style which encompasses individuals overcoming stressors through available resources (such as interpersonal or physical resources). Individuals may have similarly used Lazarus and Folkman's (1980) emotion-focused coping style where South Africans, knowing that various stressors are out of their control, may have regulated their emotional responses to stressors through actions of avoidance, distraction, distancing, or denial. Such potential cognitive appraisals and coping styles may have therefore resulted in individuals having less worry or stress associated with their exposure to the South African stressors which may have influenced the results obtained. For example, Borst and Blom's (2021) study of 1853 Dutch public servants further illustrates the influence that stress appraisals have on the extent to which stressors are appraised as challenging or hindering. The public servants, regardless of being exposed to many emotional and psychological stressors, continued to appraise them as challenging but part of their work and therefore had low levels of worry regarding these stressors (Borst & Blom, 2021). This study alludes to the potential of individual appraisals in influencing the outcomes of stressors on individuals. The possibility of using cognitive appraisals and coping styles as buffers does require further research to test whether they could effectively elevate psychological well-being levels within adverse contexts.

Once the scores for South African socio-economic stressors and psychological well-being were established the scores for leaders creating hope were assessed. These scores had a mean of 3.34 with a large standard deviation of 1.5. As low scores (1) indicated lower creations of hope by leaders and high scores (6) indicated higher creations of hope by leaders the mean reveals that the sample of employees had, for the most part, average creations of hope by their leaders. However, the large standard deviation of 1.5 indicates that the data is quite spread out (there is a wide dispersion of the data as the data is not tightly clustered around the mean) revealing that there is a large variance regarding these responses for leaders creating hope (Field, 2013). This is evident in the responses obtained across the scale as 36.92% of the sample scored between 2.5 and 4.5 (indicating average levels of leaders creating hope), 34.62% of the sample scored between 1 and 2.5 (indicating lower levels of hope creation by leaders), and 28.46% of the sample scored between 4.5 and 6 (indicating higher levels of hope creation by leaders).

The variety of responses regarding perceived levels of leaders creating hope is understandable as leaders creating hope is not a widely studied nor implemented construct within leadership literature or organisational practices (Helland & Winston, 2005). Furthermore, the diverse and multicultural context of South Africa provides further potential insight regarding why a variety of responses was obtained for whether leaders created hope. As South Africa is a diverse and multicultural context it is probable that there are a wide range of leadership styles that are adopted in different organisations. Research shows that certain leadership styles are more inclined towards hope creation such as transformational leadership (Karimi et al., 2023). This leadership style, through elevating employee disclosure- and reliance-based trust, can effectively develop employees' hope as it elevates employees' way power and willpower to achieve organisational goals. Accordingly, certain leadership styles such as servant and transformational leadership are more inclined towards instilling hope in their employees when compared to others. It is therefore possible that not all the respondents had leaders who developed agency (goal-directed determination) and pathways (planning of ways to meet goals) within their employees to elevate their will and way power (Luthans, 2002). A wide range of responses regarding whether leaders create hope may consequently be attributable to different respondents having leaders with different leadership styles that possess varying capabilities to effectively create hope within their employees.

Moreover, multicultural contexts present subjectivity in understandings of constructs as cultural differences inform varying interpretations of everyday explanations by different individuals (Ribeiro & Fleith, 2018). This may have influenced the different understandings and responses towards questions of hope as some participants, when completing the questionnaire, may have not referred to the same understanding of hope. For example, some participants may have adopted Snyder's (2002) definition of hope when completing the questionnaire whereas others may have adopted a definition of hope that aligns with their specific cultural or religious beliefs (Gallagher & Lopez, 2017). According to these different definitions there would be different interpretations regarding whether their leaders created hope or not.

Relationships among the variables

Pearson's correlation coefficients: The relationship between South African socio-economic stressors and psychological well-being

One of the aims of this study was to establish the relationship between South African socio-economic stressors and psychological well-being in a sample of employees working within South Africa. Accordingly, this study explored the nature of the association between these key variables along with the significance, strength, and direction of this relationship. The literature on stressors and well-being informed this study's theorisation that increases in exposures and experiences of stressors would have a significantly negative relationship with psychological well-being (Slone and Hallis, 1999; Slone et al., 1999; Huddy and Feldman, 2011; Morgan et al., 2011). This theorised relationship was supported by Pearson's correlation coefficients which indicated that majority of the scales and subscales of South African socio-economic stressors (SA-SE Stressors) and psychological well-being (PGWB) had significant and negative relationships with one another (Evans, 1996). For example, the Pearson's correlation coefficients indicated that the composite South African socio-economic stressors scale was significantly, negatively, and moderately to strongly correlated with the subscales anxiety PGWB, depressed mood PGWB, positive well-being PGWB, self-control PGWB, general health PGWB, and vitality PGWB. This indicates that, for this study's sample, South African socio-economic stressors had negative implications for the participants' different psychological well-being levels such as their anxiety and general health levels. The Pearson's correlation coefficients further highlighted that the composite psychological general well-being scale had statistically significant and negative relationships with the composite scale and subscales of South African socio-economic stressors.

The composite PGWB did, however, have varying relationship strengths with the some of the subscales of South African socio-economic stressors. Although PGWB had a moderate relationship with SA work-related stressors, SA environmental stressors and SA relational stressors, PGWB had a weak relationship with SA threat-to-security stressors and SA stressors related-to-accessing-assistance and a very weak relationship with SA financial stressors. This suggests that for this sample different stressors had varying implications for the participant's overall psychological well-being as SA work-related stressors, for example, presented greater implications for the participants when compared to SA financial stressors. Pearson's correlation coefficients also indicated that PGWB had a strong relationship with SA Stressors impacting

health and the composite South African socio-economic stressors scale. This further stipulates that, for this study's participants, SA health stressors and SA-SE stressors collectively had greater negative implications for their overall psychological well-being.

These findings are consistent with available research and literature which highlight the adverse implications stressors have on the psychological well-being of individuals (Charles et al., 2013). An interesting find, however, is that the composite PGWB had some weak to very weak relationships with some of the SA-SE subscales such as SA financial stressors, SA threat-to-security stressors and SA stressors related-to-accessing-assistance. One would expect, for example, that SA financial stressors would have a stronger relationship with the participants' PGWB as South Africa has high unemployment and poverty rates along with inadequate resources and assistance for many individuals (Van Merwe and Kassan-Newton, 2007). As there are many financial stressors evident within the South African context and the participants had above average levels of worry associated with SA financial stressors one would therefore expect stronger relationships between such stressors and the participants' PGWB. However, these findings indicate that South African stressors that are work-related, environmental, relational, or health-related had greater adverse implications for an individual's psychological well-being within this sample. As previously discussed, this may be due to how the individuals within this sample cognitively appraised the different stressors and this research does suggest that some stressors were appraised as being more detrimental to an individual's PGWB than others (Borst & Blom, 2021; Pretorius & Padmanabhanunni's, 2023). This may be attributed to the sample used for this research study being a sample of employed individuals who may appraise these stressors as being more adverse. However, the composite SA-SE Stressors variables did have a significantly strong relationship with the composite PGWB variable, indicating that the different stressor types collectively have adverse effects on an individual's overall psychological well-being. Additionally, the composite SA-SE Stressors variable had significantly moderate to strong relationships with the different subscales of PGWB indicating that different SA-SE stressors collectively have adverse effects on not only an individual's overall PGWB but also on all the different dimensions of an individual's psychological well-being, such as their anxiety levels and positive well-being.

Pearson's correlation coefficients: the relationship between leaders creating hope and psychological well-being

This research further aimed to establish the relationship between leaders creating hope and psychological well-being within the sample of employees working within South Africa. Like the previous relationship this study explored the nature of the association between these key variables along with the significance, strength, and direction of the relationship. Previous literature on the associations between psychological capital hope and leadership along with psychological capital hope and psychological well-being informed the theorisation that leaders creating psychological capital hope within their employees will have a significantly positive relationship with psychological well-being (Shorey and Snyder, 2004; Luthans and Avolio, 2003; Luthans et al., 2008). This theorised relationship was supported by Pearson's correlation coefficients which indicated that leaders creating hope had mostly significantly positive relationships with the subscales of psychological general well-being (Evans, 1996). The results indicated that leaders creating hope had a very weak relationship with anxiety PGWB and weak relationships with depressed mood PGWB, positive well-being PGWB, vitality PGWB, and the compositive variable psychological general well-being. Leaders creating hope did not have statistically significant relationships with self-control PGWB and general health PGWB.

These results support claims by Luthans and Avolio (2003) that "the force multiplier throughout history has often been attributed to the leader's ability to generate hope (p. 253)" as Pearson's correlation coefficients indicate that there is an association between leaders creating hope and the psychological well-being of this study's sample. This supports additional available research that suggests that creations of hope resources do improve psychological well-being and that leaders possess the capacity to create hope resources (Luthans, 2002; Frank, 1968; Gallagher & Lopez, 2017; Shorey & Snyder, 2004; du Plessis and Barkhuizen, 2012). Through leaders creating hope along with hope's capabilities to improve individual psychological well-being this study highlights therefore new insights into ways that leaders may be able to support their employees during challenging times (Snyder et al., 1991). Through finding these significant relationships this research consequently presents ways for organisations and leaders to support their workforce through creation of hope resources. It was, however, surprising to find that the significant and positive relationships that were present were either weak or very weak in their associations rather than being moderate or strong. However, as there is inadequate research on leaders creating hope and how this impacts the psychological well-being of employees this

indicates the need for more research to better explore the nature of the relationship between this understudied construct (leaders creating hope) with other variables (such as psychological well-being).

The Multiple Regression Model

To establish the relationship of this study's key variables in greater depth a multiple regression analysis was conducted. This assessed the extent to which the predictor variables (South African socio-economic stressors and leaders creating hope) predicted the outcome variable (psychological general well-being). Establishing such relationships would provide valuable direction regarding ways to assist employees within adverse circumstances. The regression analysis exploring such possibilities indicated that South African socio-economic stressors and leaders creating hope were statistically significant predictors of the psychological well-being of employees working within South Africa. Thus, this study's model explained 40.8% of the variation in psychological well-being along with having a large effect size of 0.35 when assessing Cohen's f^2 (Field, 2013). This large effect size was somewhat anticipated as South African socio-economic stressors had moderate to strong correlations with psychological well-being which aligns with existing literature (Spangenberg & Pieterse, 1995; Landman and Henley, 1998). However, as leaders creating hope had smaller correlations with psychological well-being it was not certain whether this model would be significant. Nevertheless, both South African socio-economic stressors and leaders creating hope had significant (positive and negative respectively) effects on PGWB when assessing the regression coefficients which coincides with available literature (Luthans et al., 2008; du Plessis & Barkhuizen, 2012). Although leaders creating hope did have a smaller effect size than South African socio-economic stressors it did have a statistically significant effect on psychological well-being. this study, through finding that leaders creating hope is a direct predictor of psychological well-being in the sample, suggests that leaders creating hope could be an important component in elevating the psychological well-being of employees, regardless of whether stressors are considered. This supports previous literature that explored the benefits of psychological capital hope, such as Kwon (2002) finding that greater levels of hope improved individual physical health and lowered depression levels. This is relevant as the well-being of employees have various implications for organisations with studies demonstrating that higher employee well-being levels are associated with elevated employee engagement and job satisfaction which

optimally contributes to effective organisational functioning (Abolnasser et al., 2023; Sypniewska et al., 2023). This produces beneficial organisational outcomes including sustainable employee performance, improved affective organisational commitment, and elevated organisational citizenship behaviour which elevates organisational performance and profits (Almarzooqi et al., 2018; Da et al., 2021). Accordingly, finding that leaders creating hope is a significant predictor of the sample's psychological well-being provides insights into meaningful ways to assist both employees and their organisations.

Moderation

As previous literature has alluded to the complex relationship among leaders and hope, stressors, and psychological well-being, this study conducted a moderation analysis to explore, in further depth, the underlying associations among these key variables (Charles et al., 2013; Shorey and Snyder, 2004; Luthans and Avolio, 2003). This was crucial as although previous literature has established the relationship between psychological well-being with both stressors and hope along with the relationship between leaders and hope insufficient literature has explored the outcomes of leaders creating hope on psychological well-being levels, both globally and within the South African context that is filled with numerous stressors. This analysis explored whether leaders creating hope moderated the relationship between South African south-economic stressors and psychological well-being. This attempts to provide new insights on how to aid employees who constantly experience South African stressors that produce both adverse individual and organisational outcomes. The moderation analysis found that both South African socio-economic stressors and leaders creating hope had separate main effects on the sample's psychological well-being. This further establishes the significant relationship between leaders creating hope and the psychological well-being of employees within their respective organisations. However, in contrast to what available literature implies about the relationship among these key variables, this study did not find leaders creating hope to be a moderator in the South African socio-economic stressors-psychological well-being relationship. Although this was an unexpected outcome there are various plausible reasons why a moderating effect of leaders creating hope was not found which are explored below.

Consideration regarding the leaders creating hope and South African socio-economic stressors measures

Both leaders creating hope and South African socio-economic stressors are important but under-researched phenomena. Although literature does allude to the importance of these constructs in relation to psychological well-being the literature does not provide appropriate scales to measure both phenomena. This led to adapting appropriate scales to measure the respective constructs. Adapting scales are not conclusively bad practice and are common in research, however, adapting scales could present various limitations regarding their effectiveness in producing appropriate results (Aguinis & Vandenberg, 2014). Given the limited timeframe of this study it was not possible to first test the appropriateness of this adapted scale through a pilot sample for example, although the item-total correlations and exploratory factor analysis were deemed appropriate for the adapted scales (Heggestad et al., 2019). Regardless, the lack of adequate instruments choices made it difficult to establish whether they were appropriately measuring each respective construct (Bakar and Mustaffa 2013; Tanimura et al. 2011).

Therefore, what may have occurred is that due to the lack of the measures' sensitivity the scales failed to accurately measure the specific hope resource that was required to overcome the specific worries produced by the stressors. Rather the Leaders Creating Hope scale, for example, explored general hope within the sample and was therefore too general to find a potential moderating effect that specifically combated the stressors impacting the sample's psychological well-being. This potential lack of sensitivity may have presented further issues regarding content validity. Content validity is the degree to which elements of an assessment instrument are applicable to and representative of the target construct for assessment purposes (Spoto et al., 2023). It is therefore possible that as this scale was adapted and no scale is available to compare to or utilise there may have been a potential discrepancy between the intended and actual relationships between the instrument's items and the construct's elements being measured, particularly as leaders creating hope is an under-researched phenomenon (Spoto et al., 2023). Therefore, even though the scale was reviewed before the study it is possible that this adapted scale did not appropriately evaluate all necessary or specific aspects of leaders creating hope as evident within South Africa where specific stressors may need to be overcome by specific types of hope which may have resulted in non-significant moderation results.

Extraneous variables that may be applicable within the South African context

Further explanations regarding the moderation results obtained includes the presence of extraneous variables that may be applicable within South Africa but were not measured in this research study. As previously discussed, South Africa is multicultural and made up of diverse cultures, groups, and individuals which produce differing perspectives and behaviours (Ribeiro & Fleith, 2018). Moreover, South Africa has a history of overcoming difficulties as it has a history of pre-colonialism and colonialism and currently operates as a democratic country (Luthans et al., 2004). Furthermore, individuals and organisations within South Africa face various challenges including considerable economic, political, and social issues which make South Africa rather complex to operate within (Luthans et al., 2004). Considering the difficulties that South Africans continuously encounter it is plausible that South Africans may already be developing resources to overcome adversities, whether it be on a communal or organisational level. Consequently, there are potentially other extraneous variables which South Africans may have developed which could have masked the moderating effects of Leaders Creating Hope. As there was a limited time scope to conduct this research it was not feasible to measure all possible variables that may be influencing the relationships being studied. Therefore, other coping resources may have been used to overcome the stressors which may explain why moderating effects of Leaders Creating Hope were not found. Accordingly, employees within this present study may have drawn upon other psychological resources to assist them which may explain further why their stress levels were lower than what was expected and why a moderating effect was not found.

One such resource that may be applicable to South Africa is resilience. Like hope within this study resilience is also a core construct of psychological capital within positive organisational behaviour and is defined as an individual's positive psychological state depicted by overcoming and recovering from adversities and difficulties towards possibilities of attaining success (Luthans et al., 2006). Resiliency as a positive psychological capacity has also been depicted as the ability to recover or bounce back from difficulties, uncertainty, and failure, and also positive changes, increased responsibility, and progress (Huey & Weisz, 1997; Hunter & Chandler, 1999; Luthans, 2002; Stewart et al., 1997). When considering the previously discussed socio-economic stressors within South Africa it plausible that resilience resources are relevant to constantly overcome and recover from numerous difficulties within our turbulent environment. This aligns with clinical research that has shown that both contextual (external) and psychological (internal) elements influence one's capacity for resilience (Luthar

et al., 2000; Masten et al., 1990; Werner & Smith, 1982). To effectively navigate the turbulent South African context individuals may have developed and utilised resilience resources to overcome their socio-economic stressors (Hamel & Välikangas, 2003). And so, due to resiliency's reactive nature which is characterised by external adaptations it is possible that South Africa is a resilient society. This would imply that South Africa may generally possess the capacity to utilise resiliency to overcome socio-economic stressors which resulted in lower stress levels than what was anticipated (Luthans et al., 2004). Thus, within the consistently turbulent South African environment, resilience resources may have masked the moderating effect of leaders creating hope for this research study and may have further resulted in lower stress levels than what was anticipated in this study (Bonanno, 2004).

Conservation of Resources framework's principles and corollaries

An additional explanation for this study's lack of moderating effects is the Conservation of Resources (COR) theory which depicts the relationship between resource loss and resource gain with stress and psychological well-being. As previously discussed in the literature review, this framework states that stress is an outcome of threatened or actual losses of key resources or when there are not sufficient resource gains (which is applicable owing to South African socio-economic stressors) (Hobfoll, 1989). Studies on COR have found that resource gains may assist in overcoming work difficulties and have positive implications for employee well-being, while resource losses or having inadequate access to resources have considerably negative implications for one's well-being (Herttuala et al., 2020). This study considered the various principles and corollaries regarding the conceptualisations of resource gains and losses to hypothesise the variables' potential relationships. Principle two of resource gains, which focuses on resource investment, states that individuals ought to invest resources to manage and defend against resource loss and to gain additional resources (Hobfoll et al., 2018). Consequently, this study explored how the resource investment of Leaders Creating Hope may potentially moderate the relationship between psychological well-being and socio-economic stressors. It was hypothesised that such proactive resource investments would have positive outcomes for an individual's well-being (Chen et al., 2015).

However, principle one relating to resource loss identifies resource losses as being more severe and significant than resource gains (Halbesleben et al., 2014). Hobfoll and Lilly's (1993) study confirmed this principle through their results finding that resource losses had stronger relations

to deteriorating well-being and emotional distress when compared to resource gains. Additional studies continued to confirm principle one through finding greater adverse implications of resource losses on an individual's well-being when compared to resource gains (Hochwarter et al., 2008; Wheeler et al., 2013). This may provide an explanation regarding why a moderating effect of leaders creating hope was not found. Principle One of COR indicates that it is possible that the resource losses experienced by the sample owing to the various stressors had stronger relations with their psychological well-being as compared to gaining resources of hope through their leaders. And so, through principle one affirming the more adverse implications of stressors on an individual's well-being it is probable that the prominence of South African socio-economic stressors as opposed to resource gains through leaders creating hope may have resulted in a moderating effect not being obtained.

Additional corollaries of COR provide further potential explanations regarding why a moderating effect was not found. Corollary one states that individuals and groups that lack resources are more vulnerable to further resource losses and tend to acquire fewer resource gains (Hobfoll et al., 2018). Studies have confirmed corollary one through finding that individuals with minimal resources had greater stress-related experiences such as depression, (Kessler et al., 1988), burnout (Shirom, 1989), and adverse physiological outcomes (Melamed et al., 2006; Halbesleben et al., 2014) when further resource loss occurs. Although the current resource levels of the sample were not measured it is possible, given the South African context previously discussed (highlighted by great resource disparities and inequalities), that the sample experienced greater resource losses than gains and therefore struggled to efficiently gain resources through creations of hope by their leaders. This, along with greater vulnerability to further resource losses, is a possible explanation regarding why a moderating effect was not found as the resource losses caused by socio-economic stressors may have presented challenges with gaining resources.

Corollary two of COR further states that resource investment (gains) becomes more challenging as individuals lose resources (termed as a resource loss spiral) (Halbesleben et al., 2014; Hobfoll et al., 2018). A study by Ha (2018) confirmed this COR corollary through finding that greater resource losses produced greater resource loss spirals which had adverse implications for employee well-being. Within this current research study, the sample had experienced various socio-economic stressors which may have resulted in resource loss spirals. This may have potentially resulted in difficulties in resource investment which is understandable when considering the varying responses regarding whether their leaders created

hope within them. Consequently, the possible challenges of resource investment within the current sample provides a further explanation regarding why a moderating effect was not found as resource loss spirals may have conceivably resulted in insufficient resource gains.

Theoretical and practical implications

Theoretical implications

As was argued in the rationale for carrying out this study the constructs of stressors and psychological well-being have dire implications for the effective functioning of employees and consequently organisational practitioners ought to explore sustainable ways of assisting such individuals (Charles et al., 2013). One such way evident within literature is that of organisational leaders creating hope within their employees (Helland & Winston, 2005). Accordingly, this study examined the relationship between South African socio-economic stressors, psychological well-being, and leaders creating hope. The findings of this study support current literature as socio-economic stressors negatively correlated and predicted psychological well-being along with leaders creating hope positively correlating and predicting psychological well-being (Atwoli et al., 2013; Luthans and Avolio, 2003).

However, unlike what current literature suggests this research did not find a moderating effect of leaders creating hope in the relationship between socio-economic stressors and psychological well-being. Nevertheless, through finding direct effects of South African socio-economic stressors and leaders creating hope on psychological well-being this research does make a distinct contribution to leadership, stress, and psychological capital hope literature specifically within the South African organisational context. The findings present a potential foundation that requires further development but can provide some direction towards effectively elevating the psychological well-being of South African employees. This research aids in advancing South African and international research on psychological well-being, stressors, leadership, and psychological capital hope. This can potentially assist future researchers in creating interventions that aid employees within adverse contexts where their psychological well-being is threatened. Moreover, this study makes a distinct contribution to leadership literature through emphasising the importance of the often overlooked but important phenomena of hope creation (Helland and Winston, 2005). Psychological capital literature has previously established that the resource hope and the other psychological capital constructs are not fixed but can be created and developed through targeted interventions (Luthans, 2002).

Notably, leadership literature alludes to the potential of leaders to create hope resources within their employees (Shorey and Snyder, 2004). This study therefore provides further insight for organisational practitioners to aid employees within South African organisations. Consequently, this current study has expanded on and furthered considerations regarding the importance of leaders aiding their employees during adverse times through the creation and development of hope resources within South Africa.

Importantly this research highlights how leaders creating hope in employees enables the organisation's workforce to have resources that aid them in seeking new and different pathways for goal achievement and will also further assist them through encouragements towards effectively overcoming stressors and their associated obstacles (Newman et al., 2014). This research further shows that, like the development of other forms of capital, the development of psychological capital hope by leaders allows them to develop employees towards long-term success and sustainable well-being (Luthans & Youssef, 2004). The exploratory factor analysis that was conducted also contributes to current research on stressors, specifically socio-economic stressors within South Africa. Not only does it highlight the various stressors within South Africa impacting individuals, but the adapted South African Socio-Economic Stressors scale is a reliable measure that can be further developed to assess the different South African stressors affecting individuals. This is particularly important as no current scale measures socio-economic stressors within South Africa regardless of their dire implications for psychological well-being. Moreover, the exploratory factor analysis of the adapted Leaders Creating Hope scale also contributes to leadership and hope literature. The scale provides some foundation for the development of an appropriate measuring instrument to assess the extent leaders are creating hope within their employees. Overall, this study has provided novel insight for advancing theoretical understandings of psychological well-being and stressors and particularly leadership and hope creation which may aid in the development of models and interventions to assist employees who face South African socio-economic stressors.

Practical Implications

This research study also presents various practical implications. One such practical implication is emphasising the possibilities for organisational practitioners and researchers to develop frameworks and interventions for leaders to create hope resources within their workforce. Psychological capital hope has been established as being state-like with research indicating

that, unlike traits, hope can be developed over time (Luthans, 2002). Consequently, hope as an essential resource when developed will provide individuals with greater agency (goal-directed energy) and pathways (planning of meeting goals) which will aid in elevating their well-being. Accordingly, hope is receptive to development by key figures within organisations including leaders as has been alluded to within organisational psychology literature (Shorey & Snyder, 2004; Luthans & Avolio, 2003). For example, research has shown that the constructs of psychological capital, such as hope, can be developed through various training interventions (Luthans et al., 2008; Luthans et al., 2010). This research study found that leaders creating hope impacted the psychological well-being of the current sample which presents important practical implications for leadership development. This indicates the possibility for future researchers to establish frameworks that can inform effective training interventions that aids in leaders developing hope within their workforce.

Strengths and limitations of this research study

Strengths

There are different strengths that this current study has presented. Firstly, this study has been valuable in determining self-reported levels of leaders creating hope within the South African context along with the nature of the relationship of psychological well-being with both leaders creating hope and South African socio-economic stressors.

Through establishing the different associations among South African socio-economic stressors, psychological well-being, and leaders creating hope this research has furthered understandings of the relationships among the studied phenomena. This provides relatively novel conclusions regarding these relationships and contributes to the existing body of theoretical knowledge which strengthens the merit of this research. Firstly, this research established that there is a significant relationship between South African stressors and an individual's psychological well-being together with leaders creating hope and an individual's psychological well-being. This demonstrates the impact that different socio-economic stressors have upon employees within the turbulent South African context and that there are potentials for leaders to aid their workforce through creating hope resources. Moreover, although existing literature alludes to the potential of leaders creating hope in significantly influencing an individual's well-being, the moderating analyses revealed that within the current sample this variable did not moderate the stressor-psychological well-being relationship. However, the results indicated that there is

a direct relationship between leaders creating hope and psychological well-being Through the various analyses establishing the relationship between the two phenomena a major strength of this study is that it begins to fill an important research gap within organisational literature. Through addressing this research gap this study presents novel insights of leaders being able to assist employees through creating hope resources within them to aid them within adverse environments for a healthier workforce.

The context of this research is argued as further contributing to the strength of this research study. Although stressors and their implications for psychological well-being are relevant within South Africa this pertinent topic appears to be under-researched. Moreover, insufficient research has explored potential ways organisations may assist their workforce in elevating their employees' psychological well-being. This research, which was carried out within South Africa and made use of South African employees, has therefore contributed further insight into these constructs within a fairly unique setting and which is directly applicable to South Africa's context. In this way, this study has presented a foundation from which organisational practitioners can create and develop effective organisational interventions, practices, and policies to aid their leaders in creating hope resources within their workforce. The depth of this research presents a further strength for this study. This research revealed, through the correlation analyses, that certain stressors had greater impacts on different subconstructs of psychological well-being in addition to the overall psychological well-being construct. Accordingly, this research provides insight into the different implications of differing stressors as not all stressors have extreme implications for an individual's psychological well-being (although a compilation of stressors does have adverse implications within the South African context). This suggests that researchers may assess and intervene for stressors that may present more dire consequences for an employee's psychological well-being compared to other stressors.

Moreover, the adapted instruments for both South African socio-economic stressors and leaders creating hope provide further strengths for this study. As previously noted, there are insufficient instruments that measured South African stressors. Additionally, there are no (to the researcher's knowledge) instruments measuring the phenomenon of leaders creating hope. The adapted scales presented within this study, although requiring further development, therefore provide a basis and future direction for the development of instruments that measure these key constructs pertinent within South Africa particularly as their internal consistency reliabilities were good to excellent (Field, 2013). The adapted scales therefore provide further direction for

practitioners regarding novel ways to measure the effectiveness of leaders creating hope within their organisations in response to the dire implications of South African stressors.

Limitations

Although this research study did produce important findings that have contributed to current theoretical literature on leadership, psychological capital hope, stressors, and psychological well-being in South Africa, it does possess some limitations. These limitations included: the use of self-report questionnaires; the data collection method, the sample size; the cross-sectional non-experimental design of the study; and the unrepresentative nature of the sample's demographics.

The self-report nature of the instruments presents a potential limitation within this study. Self-report questionnaires do provide strengths for research studies such as being inexpensive, being able to be administered to a large sample quickly, and providing anonymity to participants (Demetriou et al., 2015). However, there are potential shortcomings of self-report questionnaires. Firstly, self-report instruments assume that accurate reports are collected from respondents regarding their perceptions and experiences of their experiences and well-being levels (Grimm, 2010). However, it is possible that participants responded in socially acceptable ways (social desirability bias) which presents issues of (non-)acquiescent response bias. Moreover, using Likert-type scales may have also been problematic as participants were limited in their interpretations and responses regarding their levels of psychological well-being, experiences of stressors, and whether their leaders created hope (Field, 2013). Owing to the reflective nature of the measures it is also possible that some respondents lacked the introspective ability to accurately assess whether their leaders effectively created hope. This may have all led to distorted responses and interpretations of the scales which may have influenced the results obtained. Moreover, the lacking sensitivity of the adapted scales to assess creations of specific hope resources (as previously discussed as potentially being present) may have also limited the accuracy of the responses obtained.

The data collection method provided a further limitation for this research study. This research required all participants to have access to both a computer and the internet which may have presented some potential participants from taking part in this study. Within South Africa not every individual in the population has equal access to electricity, technological devices, or the internet. As all the participants were required to be working in an organisation based in South

Africa and the questionnaire was distributed via social media platforms and email it was presumed that all respondents would have some sort of access to the necessary technology to complete the questionnaire. Nevertheless, the data collection method did potentially limit the accessibility of the questionnaire to all individuals within the South African population.

Another potential limitation is the sample size of this research study. The sample size was relatively small (*N*=130). Although this sample size is considered acceptable to carry out the different statistical analyses it would have been beneficial to have a larger sample size so that it may be more representative of the South African population. A larger sample may have also produced slightly different results for the moderation analyses and would have therefore allowed for Structural Equation Modelling (SEM) to be used within this study (Anderson et al., 2017). SEM would have provided a more in-depth exploration of the nature of the moderation between the studied variables in this research study (Sardeshmukh & Vandenberg, 2017). As leaders creating hope is an understudied construct SEM would have therefore aided in better exploring this variable's relationships with the other measured constructs.

Moreover, there are potential limitations regarding the use of a cross-sectional non-experimental approach for this research study as causal inferences cannot be made . The findings of this research do not provide evidence of a causal relationship between the variables (Field, 2013). Utilising a cross-sectional design also meant that the data was only collected at one point in time from the participants with these timing effects having the potential to impact the results obtained. This is a result of the researcher not being certain as to whether the respondents were using potential hope resources created by their leaders during the same time at which they completed the questionnaire, or whether they already had hope resources and successfully coped with stressors before completion of the questionnaire, which would have impacted concurrent experiences of leaders creating hope or may have concealed any evident interaction effects.

Additionally, the demographic information gathered from this study's sample indicates that the sample was not appropriately representative of the entire South African population which presents limitations regarding generalisability. The data was skewed in terms of gender with majority of the sample being female (72.3%). Within the South African population women make up approximately 51.1% (StatsSA, 2021), and therefore the sample is not appropriately representative of the distribution of genders within South Africa. English was the majority spoken first language within this study (66.9%) followed by Afrikaans (10.8%). However, out

of the eleven official languages of South Africa isiZulu is spoken as a first language by 22.7% of the population, with English being a first language for 9.6% of the population and Afrikaans being a first language for 13.5% of the population (StatsSA, 2021). Consequently, both the skewness of the gender and home language of the sample presents limitations for this study as the South African workforce is considerably more diverse than what the sample represented. This may have potentially influenced the results obtained regarding stressors experienced, levels of psychological well-being, and leaders creating hope. It is therefore recommended that this study be repeated with a more representative sample that better reflects the diverse South African labour market to improve the generalisability of the findings (Field, 2013). Generalisability was also limited through the study's use of non-random, convenience sampling (Stangor, 2011). As participants were chosen based upon volunteerism and availability the sample was not appropriately representative of the entire South African population (as not every individual had equal opportunities to participate in this study) which may have created potential biases within this study's findings.

Recommendations and directions for future research

Firstly, it is recommended that future research that explores the notion of leaders creating hope in South Africa makes use of a larger and more representative sample size. Ensuring this will aid in producing results that not only possess greater statistical power but will better attempt at appropriately representing the diverse population of South Africa in terms of key demographic characteristics (Anderson et al., 2017).

Secondly, it is suggested that future research makes use of a qualitative methodology when exploring leaders creating hope within South African organisations. This research made use of a quantitative methodology which provided insightful understandings of the relationships among the key variables (Field, 2013). However, through using qualitative methodology a more comprehensive study of leaders creating hope can be produced to explore these constructs influence on the stressor-psychological well-being relationship as participants would not be limited in their responses (as evident when using Likert-type scales) (Silverman, 2004). This allows these key constructs and their relationships to be examined in greater depth.

Thirdly, longitudinal research of the key variables should be considered for future research. As the current study was carried out within a limited timeline and scope a longitudinal study was not feasible. Nevertheless, it would be valuable to explore the effects of leaders creating hope

through a longitudinal study. As some of the effects of leaders creating hope on an individual's well-being may not immediately be evident after employees experience socio-economic stressors it would be beneficial to explore these effects over a reasonable period to better establish the influence of leaders creating hope (Salkind, 2012). Moreover, as longitudinal studies better infer causality the use of a longitudinal research design to explore leaders creating hope would potentially provide greater opportunities for cause-and-effect relationships to be established.

There also needs to be more research into antecedents of leaders creating hope, such as leadership styles that effectively develop hope within their employees. Additionally, future research could explore other variables that leaders can create in their employees, for example resilience or other psychological capital constructs, to promote a healthy workforce. This would also fill gaps in existing research regarding how constructs of psychological capital can be developed and utilised within organisational settings as resources that aid in buffering the negative implications of stressors.

Practical Interventions

There are other various practical interventions that organisations are recommended to consider and implement owing to the negative implications of workforces with diminishing psychological well-being on individual and organisational outcomes. Through practical interventions organisations and practitioners can foster optimal hope sources that aid in this matter.

For example, practitioners and leaders can utilise or adapt Luthans and colleagues (2006) Psychological Capital Intervention (PCI) to create interventions that assist leaders in developing hope resources within their employees to use as a positive resource. This intervention guided by Luthans et al.'s (2006) PCI can potentially elevate the levels of psychological capital within individuals, including hope. When considering hope the PCI stipulates that this resource can be developed through designing goals, generating pathways, and overcoming obstacles. This intervention and appropriate adaptions of it can therefore guide leaders towards effectively developing the willpower (agency) and way power (pathways) of hope resources in their employees. Through such interventions leaders would have better direction on how to help employees identify individual and organisational goals along with measuring their progress and so on (Luthans et al., 2004; Luthans et al., 2006). Leaders would

potentially also have guidance regarding generation of pathways for employees to assist them in achieving these individual and organisational goals. This intervention may further provide direction regarding leaders aiding their employees in identifying and overcoming obstacles that block their goal pathways. Accordingly, through the development of this potential intervention, leaders would be assisting their employees in developing these skills and consequently developing hope resources within their workforce. Such creations and utilisations of positive resources will favourably support employees when facing different stressors within the South African context.

Recommended secondary interventions can include training programmes and workshops for leaders and employees relating to goal creation and achievement to provide guidance the developing hope resources processes. Such interventions may also explore the development of other applicable resources that may assist employees when facing various stressors such as, for example, the other constructs of psychological capital (resiliency, optimism, and self-efficacy).

Conclusion

This research study has revealed the adverse implications that South African socio-economic stressors have on individual psychological well-being within the current turbulent environment. Although the moderating effects of leaders creating hope were not found this research has identified that leaders creating hope does have a direct effect on the psychological well-being of individuals. Through identifying that there is an association and direct of effect of this construct on psychological well-being levels this study has identified that leaders creating psychological capital hope may be a valuable resource in aiding employees with deteriorating well-being levels. Consequently, this research supports further investigation on the usage and development of hope and other appropriate resources as an effective way to overcome stressors. This study has additionally emphasised the importance for relevant interventions to effectively develop pertinent resources like hope so that organisations can promote healthy work settings, which will cultivate both individual and organisational success.

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APPENDICES

Appendix A: Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT ETHICS COMMITTEE
CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: MAORG/23/01**
PROJECT TITLE:	South African stressors and Psychological Well-being: The moderating role of Leaders creating Hope.
INVESTIGATOR	Aysen Savannah (1917791)
SCHOOL/DEPARTMENT OF INVESTIGATOR	SHCD/Psychology
DATE CONSIDERED	14 June 2023
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	Low Risk
EXPIRY DATE	31 December 2025
ISSUE DATE OF CERTIFICATE 03 June 2023	**CHAIRPERSON** _____ (Dr Aline Ferreira Correia)

cc: Prof. Karen Milner (Supervisor)

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I/we fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved, I/we undertake to submit an amendment of the protocol to the Committee.

_____ 04 / 06 / 2023

Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix B: Permission to use and adapt the Psychological Capital Hope scale

Psychological Capital Questionnaire

Self-Rater Form, Other Rater Form, Scoring Key

By Fred Luthans, Bruce J. Avolio & James B. Avey

Research Permission

Published by Mind Garden, Inc.

info@mindgarden.com
www.mindgarden.com

Your name:
Savannah Aysen

Email address:
1917791@students.wits.ac.za

Company/institution:
University of the Witwatersrand

Mind Garden Sales Order or Invoice number for your license purchase:
QSSBYBRVS

The name of the Mind Garden instrument you will be using:
Psychological Capital Questionnaire

Please specify the name of and web address for the remote online survey website you will be using and describe how you will be putting this instrument online:
At the current time I am intending to use this scale on Google Forms or another survey site like Survey Monkey.

Conditions of Use for Altering a Mind Garden Instrument

Before conducting your research:

1) You will register your intent to make an alteration of a Mind Garden instrument by describing the type of alteration(s), the details of the alteration(s), and the rationale behind the alteration(s). (You have fulfilled this condition. The information you provided is included below).

Instrument Name:

Psychological Capital Questionnaire

Specific Alterations:

Other alterations

Alteration Details:

I am looking at leaders creating psychological capital hope. Therefore, I would like permission to alter the hope items so that rather examining the hope an employee already has I want to explore how their leader creates that hope. For example, item 11 of self-rater version of the PCQ would read as follows: "My leader helps me think of many ways to reach my current work goals" or "My leader provides many ways for me to reach my current work goals". Additionally, I will only be using the hope scale for this study.

Reason for Alterations:

Exploring how leaders create psychological capital hope rather than examining the hope an employee already has.

2) You will assign all rights to the altered instrument to the copyright holder. (You agreed to this condition by electronically signing and submitting the form).

3) You will put the instrument copyright, including the notification that the instrument was altered, on every page containing question items from this instrument. Add the following text to the end of the copyright:

"Altered with permission of the publisher."

An example, using the Multifactor Leadership Questionnaire, is shown below.

MLQ Copyright © 1995 Bruce Avolio and Bernard Bass. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com Altered with permission of the publisher.

I agree to abide by each of the conditions stated above

Your name (as electronic signature):	Savannah Aysen
Date:	09.05.2023

You submitted your statement for altering a Mind Garden instrument at 3:08 am EDT on May 09, 2023.

mind garden

Appendix C: Permission to use the General Well-Being Schedule Questionnaire

Mapi Research Trust

USER LICENSE AGREEMENT GENERAL TERMS

Mapi Research Trust, a not-for-profit organization subject to the terms of the French law of 1st July 1901, registered in Lyon under number 453 979 346, whose business address is 27 rue de la Villette, 69003 Lyon, France (hereafter referred to as "**MRT**"), and the **User**, as defined herein (each referred to singularly as a "Party" and/or collectively as the "**Parties**"), do hereby agree to the following User Agreement General and Special Terms (hereafter, the "**AGREEMENT**").

WHEREAS MRT facilitates access to information on Clinical Outcome Assessment (COAs) and epidemiology and encourages exchanges between various users around the world by providing, in particular, the availability, translation(s) (where appropriate) and distribution of COAs.

WHEREAS the User wishes to be able to have access to one or several COAs and to use each such COA in accordance with the terms and conditions set forth in the AGREEMENT.

Now, therefore, MRT and the User agree to enter into this AGREEMENT subject to the following terms and conditions.

Article III. Grant of license

3.01 Subject to the terms and conditions of this AGREEMENT MRT hereby grants to the User and the User accepts, the following non-exclusive, non-transferable, non-assignable, non-sublicensable worldwide license, during the term specified in the Special Terms:

(i) To use the COA for the Stated Purpose in the authorized Modes and Licensed Languages, including the right to communicate it to the Beneficiaries only; and

(ii) To reproduce the COA for the Stated Purpose, including the right to physically establish the COA or to have it physically established, on any paper, electronic, analog or digital medium, and in particular documents, articles, studies, observations, publications, websites whether or not protected by restricted access, CD, DVD, CD-ROM, hard disk, USB flash drive, for the Beneficiaries and/or the Sponsor only; and

(iii) To translate the COA or have it translated when the COA has not been translated into the Licensed Language(s),

hereafter, the "**License**".

Appendix D: The South African Socio-Economic Stressors scale

Instructions: Please answer each statement as honestly as possible. There are no (in)correct answers and your responses will remain completely anonymous. Use the following scale to indicate your level of agreement or disagreement with each statement.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	2	3	4	5

	South African Socio-Economic Stressors Scale. *Instructions*: Please indicate the extent to which you felt stress or worry associated with the following statements over the last four weeks.	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	Having enough money to cover basic needs, such as paying bills.	1	2	3	4	5
2	The cost of food.	1	2	3	4	5
3	Having enough food to eat.	1	2	3	4	5
4	Needing financial help from someone I know.	1	2	3	4	5
5	Accessing unemployment benefits.	1	2	3	4	5
6	Having to deal with a physical illness or mental health problems.	1	2	3	4	5
7	Not being able to access healthcare.	1	2	3	4	5
8	Being limited in my daily activities due to chronic illness or disability.	1	2	3	4	5
9	Thinking too much/ overthinking.	1	2	3	4	5
10	Having to deal with conflict with family members.	1	2	3	4	5
11	Having to deal with conflict with friends.	1	2	3	4	5
12	Having to deal with conflict with colleagues in the workplace.	1	2	3	4	5
13	Being alone, without friends.	1	2	3	4	5

14	Feeling unsafe around family members, friends or colleagues.	1	2	3	4	5
15	Being the victim of an assault/attack.	1	2	3	4	5
16	Being the victim of theft or burglary.	1	2	3	4	5
17	My family member's or friend's safety.	1	2	3	4	5
18	Losing a family member or friend to violence.	1	2	3	4	5
19	The corruption and injustices I face in my daily life.	1	2	3	4	5
20	Socio-political conditions in my society and country.	1	2	3	4	5
21	Load shedding affecting my productivity and livelihood.	1	2	3	4	5
22	My job.	1	2	3	4	5
23	Potentially losing my job.	1	2	3	4	5
24	Not having a job.	1	2	3	4	5
25	Having to look for a job.	1	2	3	4	5
26	Seeing my work conditions deteriorate – for example, by a cut in salary/wages or having to accept reduced hours.	1	2	3	4	5
27	My workload being more than I can handle.	1	2	3	4	5

Appendix E: Participate information sheet and Consent Form

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Dear participant,

My name is Savannah Aysen and I am conducting research for the purpose of obtaining my Masters in Organisational Psychology at the University of the Witwatersrand. As part of the requirements for my degree I am conducting this research report. My research aims to explore the relationships between employee experiences of psychological well-being and South African socio-economic stressors and whether leaders creating hope can act as a buffering resource in this relationship. I would like to invite you to participate in this research study.

Participation in this study includes the completion of an online questionnaire at a time convenient for you. This questionnaire will take approximately 20-30 minutes to complete, and you are asked to please submit this within the next two to three weeks. Participation is completely voluntary, and there are no associated benefits, risks, or penalties regarding whether or not you choose to participate in this study. You will have the right to withdraw from this study at any given point until you have submitted the online questionnaire. The submission of your questionnaire will be regarded as consent to participate in this research.

We do acknowledge that participation in this research may increase awareness of current stressors in your life. If this survey has raised awareness of stressors that you would like to address, we recommend that you seek counselling or support services. It is important to prioritize your well-being, and there are resources available to assist you. If you require assistance in finding suitable counselling services please contact us and we will be happy to provide you with appropriate information and referrals.

All responses will remain confidential and anonymous at all times as no identifying information such as IP addresses, names, ID numbers, the name of your organisation, and so on, will not be collected or recorded in this questionnaire. Responses to this questionnaire will only be seen by my supervisor and myself to further guarantee anonymity and confidentiality. As the questionnaire is anonymous no individual feedback will be provided to participants and the results will only provide general results. However, upon request you will be able to obtain a summary of the results for this research once the study is concluded from the researchers.

This research study will contribute to understandings and practices around how to aid employees who face various daily stressors in the South African context. Your participation, if you choose to take part of this study, will consequently be greatly appreciated. If you have any further questions regarding this study you may contact my supervisor or myself via the details provided below. For any information regarding the ethics of this research may be directed to Shaun Schoeman from the University's Ethics Committee. Thank you for considering to partake in this research.

Kind regards,

Savannah Aysen 1917791@students.wits.ac.za

Supervisor: Professor Karen Milner karen.milner@wits.ac.za

Shaun Schoeman shaun.schoeman@wits.ac.za

I have read the details for this research. I consent to participate in this study on a voluntary basis. I understand that I may withdraw from this study before submission of the questionnaire.

Yes	No

Appendix F: Self-developed demographic questionnaire

Please indicate the following:

1. What is your gender?
   - ☐ Male
   - ☐ Female
   - ☐ Other
   - ☐ I prefer not to say
2. What is your age in years?
   - ☐ 18-30 years old
   - ☐ 31-40 years old
   - ☐ 41-50 years old
   - ☐ 51-60 years old
   - ☐ 60 & older
   - ☐ I prefer not to say
3. What is your race? (*Please note that race is only used to describe the data, that is, determine the number of people from different race groups present in the sample*).
   - ☐ African
   - ☐ Coloured
   - ☐ Indian
   - ☐ White
   - ☐ Other
   - ☐ I prefer not to say
4. What is your home language? (*language spoken most often at home*)
   - ☐ English
   - ☐ Afrikaans
   - ☐ isiZulu
   - ☐ isiXhosa
   - ☐ isiNdebele
   - ☐ Sesotho

- ☐ Sepedi
- ☐ Setswana
- ☐ siSwati
- ☐ Tshivenda
- ☐ Xitsonga
- ☐ Other, please specify _____

5. What is your current job level? (*please choose the most appropriate choice*)
   - ☐ Entry level
   - ☐ Intermediate
   - ☐ Junior management
   - ☐ Middle management
   - ☐ Upper management
   - ☐ Executive
   - ☐ Other, please specify _____
6. Are you overseen or led by someone, such as a manager/supervisor/employer/leader?
   - ☐ Yes
   - ☐ No
7. Please indicate your job industry in which you work (*i.e. banking, marketing etc.*)

   _____
8. Please indicate your tenure (*how long you have been in your current organisation*).

   _____

Appendix G: The Psychological General Well-Being Index

(Sample questions are provided below as the instrument is copyrighted).

Instructions: Please answer each statement as honestly as possible. There are no (in)correct answers and your responses will remain completely anonymous.

1. How have you been feeling in general during the past month?

(Check on box)

In excellent spirits……. □ 5

In very good spirits……□ 4

In good spirits mostly……... □ 3

I have been up and down in spirits a lot……□ 2

In low spirits mostly……. □ 1

In very low spirits……. □ 0

4. Have you been in firm control of your behaviour, thoughts, emotions, or feelings during the past month?

(Check on box)

Yes, definitely so …….……. □ 0

Yes, for the most part …….……□ 1

Generally so ……...……... □ 2

Not too well ……...……□ 3

No, and I am somewhat disturbed …...……. □ 4

No, and I am very disturbed.……. □ 5

8. Were you generally tense or did you feel any tension during the past month?

(Check on box)

Yes – extremely tense, most or all of the time…….……..…….. □ 0

Yes – very tense most of the time ……...……□ 1

Not generally tense, but did feel fairly tense several times.……... □ 2

I felt a little tense a few times...……...……□ 3

My general tension level was quite low.……. □ 4

I never felt tense or any tension at all……. □ 5

12. I woke up feeling fresh and rested during the past month.

(Check on box)

None of the time …….……..…….. □ 0

A little of the time ……... ……...……□ 1

Some for the time ……....……... □ 2

A good bit of the time …….....……...……□ 3

Most of the time ……...……. □ 4

All of the time ……...……. □ 5

Appendix H: Leaders creating Psychological Capital Hope (Self-Rater version)

Instructions: Below are statements that describe how you may think about yourself **right now**. Use the following scale to indicate your level of agreement or disagreement with each statement.

Please note: A "**leader**" is any individual that oversees you in your workplace, such as a manager, supervisor, employer, and so on.

Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Somewhat agree**	**Agree**	**Strongly Agree**
1	2	3	4	5	6

1	If I should find myself in a problem at work, my leader helps me think of many ways to get out of it.	1	2	3	4	5	6
2	At the present time, my leader is helping me energetically pursue my work goals.	1	2	3	4	5	6
3	My leader helps me see lots of ways around any problem.	1	2	3	4	5	6
4	Right now, my leader helps me be pretty successful at work.	1	2	3	4	5	6
5	My leader helps me think of many ways to reach my current work goals.	1	2	3	4	5	6
6	At this time, my leader is helping me meet the work goals that I have set for myself.	1	2	3	4	5	6

Appendix I: Invitation to share the questionnaire

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Good day,

My name is Savannah Aysen and I am conducting research for the purpose of obtaining my Masters degree in Organisational (Industrial) Psychology at the University of the Witwatersrand. My research aims to explore the relationship between South African socio-economic stressors and employee psychological well-being, and whether leaders creating hope can positively impact this relationship. To gather data for my study I am asking currently employed South African employees over the age of 18 to please complete a 20-30 minute online questionnaire.

I would like to invite you to participate in this study. Participation is completely voluntary and you will not be advantaged or disadvantaged for choosing to participate or not. If you choose to be part of this study, please follow the link below which will direct you to the participant information sheet and the online questionnaire.

If there are any other individuals who may be interested in partaking in this study, please may you forward this invitation to them.

Thank you for considering this invitation. Your participation will be greatly appreciated.

Kind regards,

Savannah Aysen 1917791@students.wits.ac.za

Supervisor: Professor Karen Milner karen.milner@wits.ac.za

Appendix J: Justification for the inclusion of selected item in the adapted South African Socio-Economic Stressors Scale

Stressor Category	**Item** (Feeling stress or worry associated with the following:)	**Source**	**Justification** – this item reflects:
Financial stressors	Having enough money to cover basic needs, such as paying bills.	Soweto Stress Scale	The financial insecurities faced by South African individuals.
Financial stressors	The cost of food.	Soweto Stress Scale	The financial difficulties in meeting basic needs in South Africa.
Financial stressors	Having enough food to eat.	Soweto Stress Scale	The financial difficulties in meeting basic needs in South Africa.
Financial stressors	Needing financial help from someone I know.	LIVES Daily Hassles Scale	The financial difficulties and crises faced by South African individuals.
Financial stressors	Accessing unemployment benefits.	LIVES Daily Hassles Scale	The financial difficulties and crises faced by South African individuals.
Health stressors	Having to deal with a physical illness or mental health problems.	LIVES Daily Hassles Scale	The physical and mental stressors prevalent in South African individuals.
Health stressors	Not being able to access healthcare.	Soweto Stress Scale	Health-related stressors prevalent among South African individuals impacting well-being.
Health stressors	Being limited in my daily activities due to chronic illness or disability.	LIVES Daily Hassles Scale	The health stressors impacting the everyday lives of South African individuals.
Health stressors	Thinking too much/ overthinking.	Soweto Stress Scale	The prevalence of mental health stressors in South African individuals.
Relational stressors	Having to deal with conflict with family members.	LIVES Daily Hassles Scale	Relational stressors arising from family conflicts, which are common stressors experienced by South African individuals.

Relational stressors	Having to deal with conflict with friends.	LIVES Daily Hassles Scale	Stressors arising from relational conflicts, which are common stressors experienced by South African individuals.
Relational stressors	Having to deal with conflict with colleagues in the workplace.	LIVES Daily Hassles Scale	Relational stressors arising from workplace conflicts, which are common stressors experienced by South African individuals.
Relational stressors	Being alone, without friends.	LIVES Daily Hassles Scale	The relational difficulties faced by South African individuals.
Relational stressors	Feeling unsafe around family members, friends or colleagues.	Soweto Stress Scale	Relational stressors with regards to safety concerns around certain individuals.
Environmental Stressors	Being the victim of an assault/attack.	LIVES Daily Hassles Scale	Common safety concerns derived from the South African environment, including personal safety, where crime is prevalent.
Environmental Stressors	Being the victim of theft or burglary.	LIVES Daily Hassles Scale	Common safety concerns derived from the South African environment, including personal safety, where crime is prevalent.
Environmental Stressors	My family member's or friend's safety.	Soweto Stress Scale	Safety concerns for significant others owing to the South African environment where crime is prevalent.
Environmental Stressors	Losing a family member or friend to violence.	Soweto Stress Scale	Safety concerns for significant others owing to the South African environment where crime is prevalent.
Environmental Stressors	The corruption and injustices I face in my daily life.	Self-developed item	Social and political stressors and challenges prevalent in the South African environment.
Environmental Stressors	Socio-political conditions in my society and country.	Self-developed item	Social and political stressors prevalent in the South African environment.
Environmental Stressors	Load shedding affecting my productivity and livelihood.	Self-developed item	Social and economic stressors that South African individuals face daily.
Work-related stressors	My job.	Soweto Stress Scale	Work-related stressors found in many workplaces and/or

			occupational roles in South African workplaces.
Work-related stressors	Potentially losing my job.	LIVES Daily Hassles Scale	Work-related stressors common in South African owing to high unemployment rates.
Work-related stressors	Not having a job.	Soweto Stress Scale	Work-related stressors common in South African owing to high unemployment rates.
Work-related stressors	Having to look for a job.	LIVES Daily Hassles Scale	Work-related stressors common in South African owing to high unemployment rates.
Work-related stressors	Seeing my work conditions deteriorate – for example, by a cut in salary/wages or having to accept reduced hours.	LIVES Daily Hassles Scale	Work-related stressors common in South African workplaces.
Work-related stressors	My workload being more than I can handle.	LIVES Daily Hassles Scale	Work-related stressors of feeling overwhelmed, which is common in South African workplaces.

Appendix K: Demographic characteristics of the sample

Table 4

Demographic characteristics of the sample

Variable		Frequency	Percentage
		n	%
Gender	Female	94	72.3
	Male	36	27.7
Age groups	18-30 years old	71	54.6
	31-40 years old	25	19.2
	41-50 years old	14	10.8
	51-60 years old	17	13.1
	60 years and older	3	2.3
Race groups	African	34	26.2
	Coloured	38	29.2
	Indian	24	18.5
	White	34	26.2
Home	Afrikaans	14	10.8
Language	English	87	66.9
	isiNdebele	1	.8
	isiXhosa	5	3.8
	isiZulu	6	4.6
	Sepedi	2	1.5
	Sesotho	3	2.3
	Setswana	3	2.3
	siSwati	1	.8
	Tshivenda	2	1.5
	Xitsonga	1	.8
	Other	5	3.8
Job level*	Entry level	32	24.6
	Intermediate	36	27.7
	Junior Management	21	16.2

	Middle Management	19	14.6
	Upper Management	10	7.7
	Other	11	8.5
Tenure at organisation*	0-1 year	33	25.4
	2-5 years	59	45.4
	6-10 years	22	16.9
	11-15 years	6	4.6
	16-20 years	2	1.5
	21-30 years	4	3.1
	31-40 years	3	2.3
Industry	Education	29	22.4
	Banking, Finance, & Commerce	27	20.7
	Consultancy, Recruitment, & Psychological services	21	16.2
	Construction, Manufacturing, Transport, & Trade	16	12.3
	Healthcare	13	10
	Telecommunications & Information Technology	11	8.4
	Advertising & Marketing	7	5.4
	Film & Entertainment	6	4.6

Key: $N = 130$; * = one response missing

Appendix L: Histograms for variables

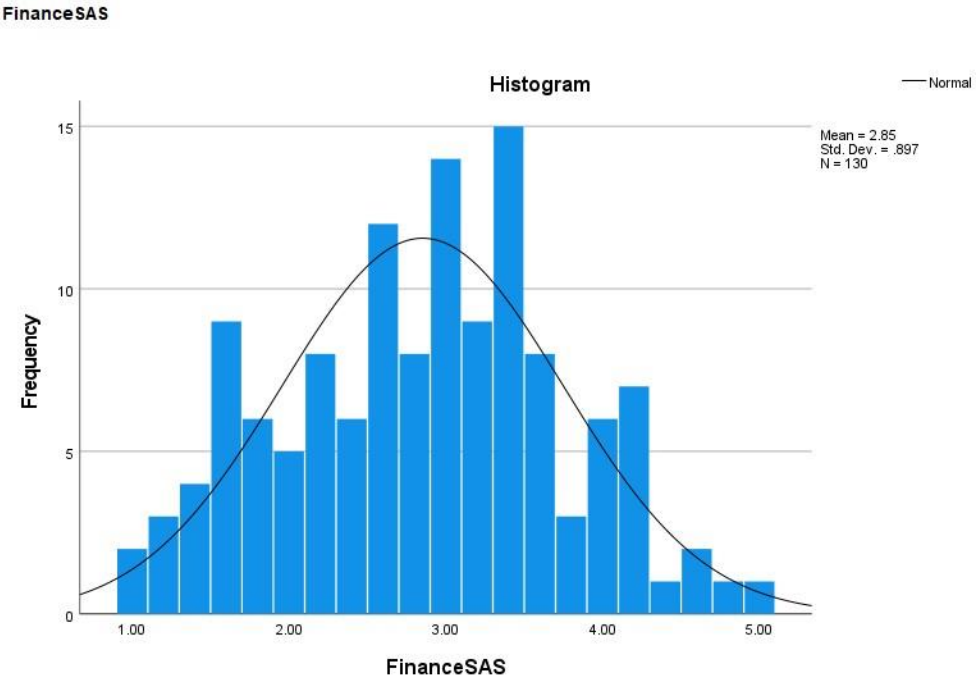

Figure 3

Distribution of South African financial stressor scores

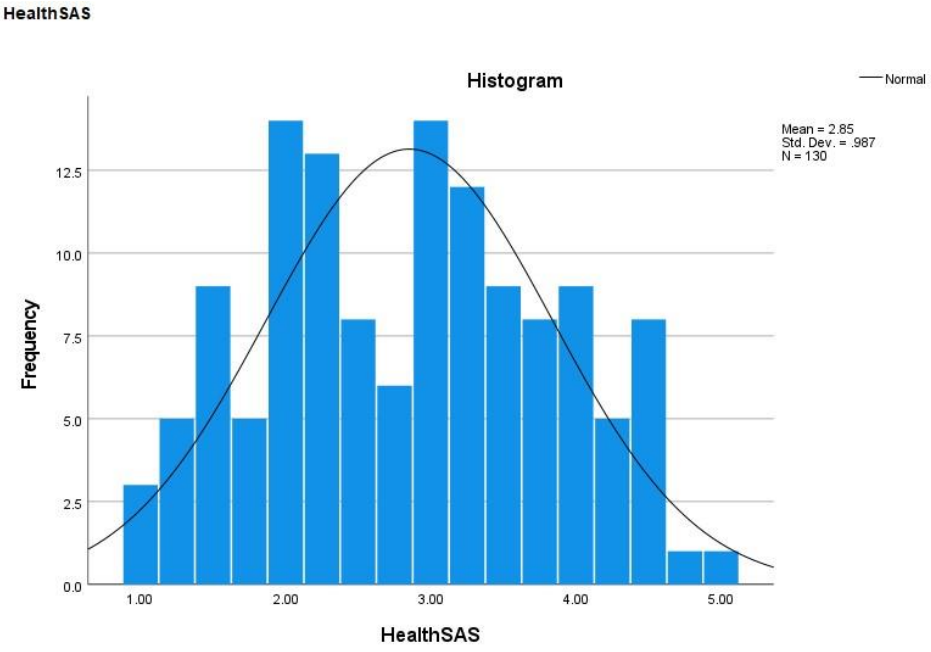

Figure 4

Distribution of South African health stressor scores

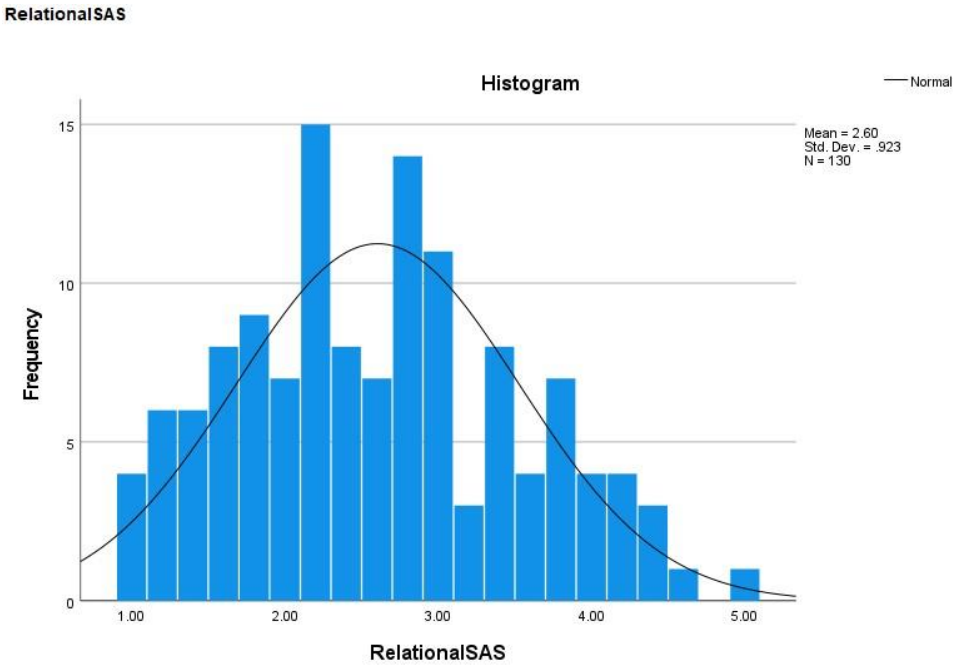

Figure 5

Distribution of South African relational stressor scores

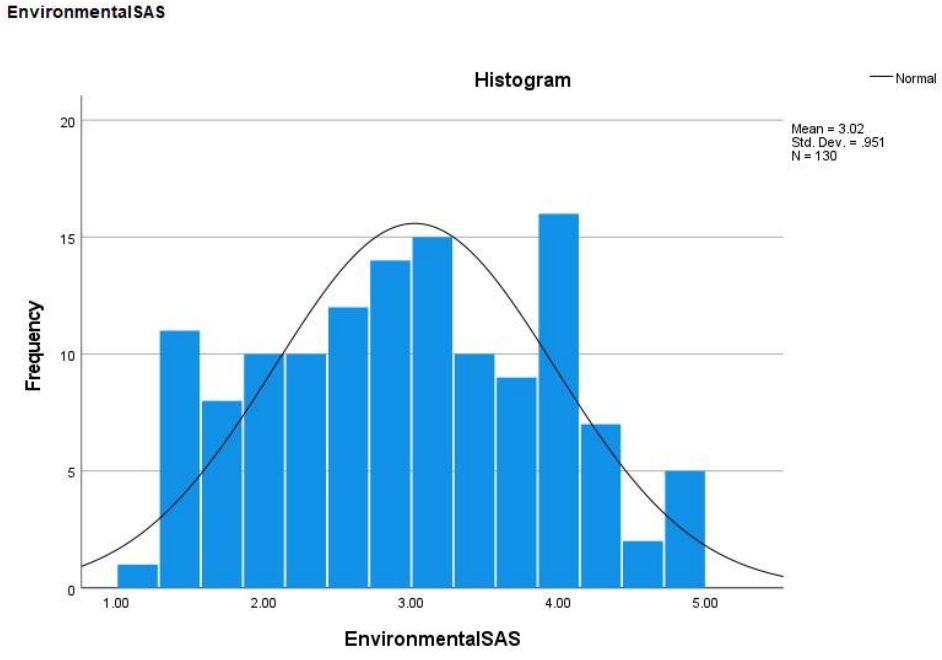

Figure 6

Distribution of South African environmental stressor scores

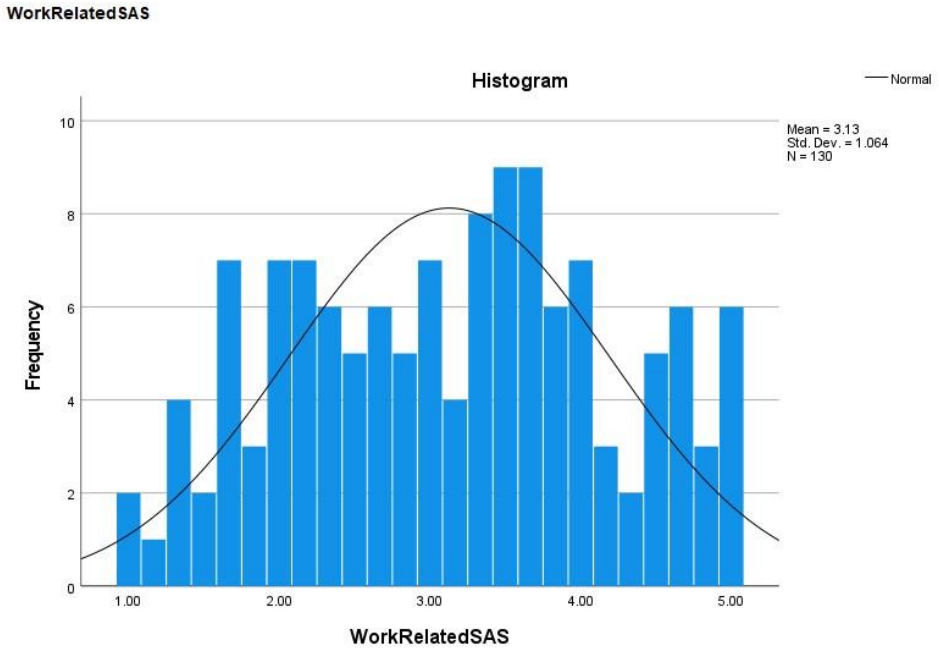

Figure 7

Distribution of South African work-related stressor scores

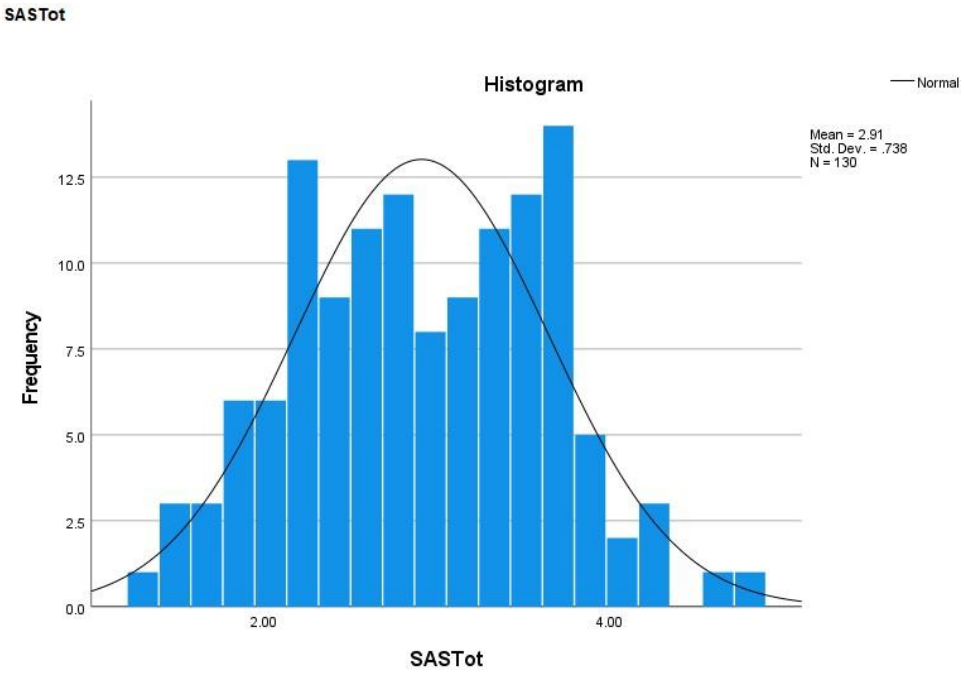

Figure 8

Distribution of South African socio-economic stressors overall scores

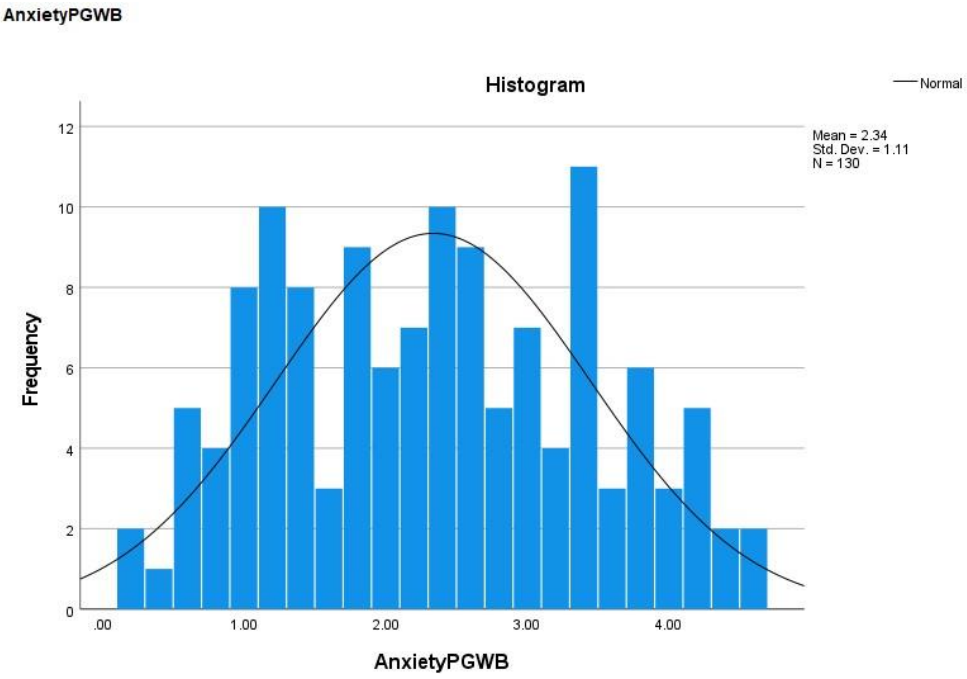

Figure 9

Distribution of psychological general well-being anxiety scores

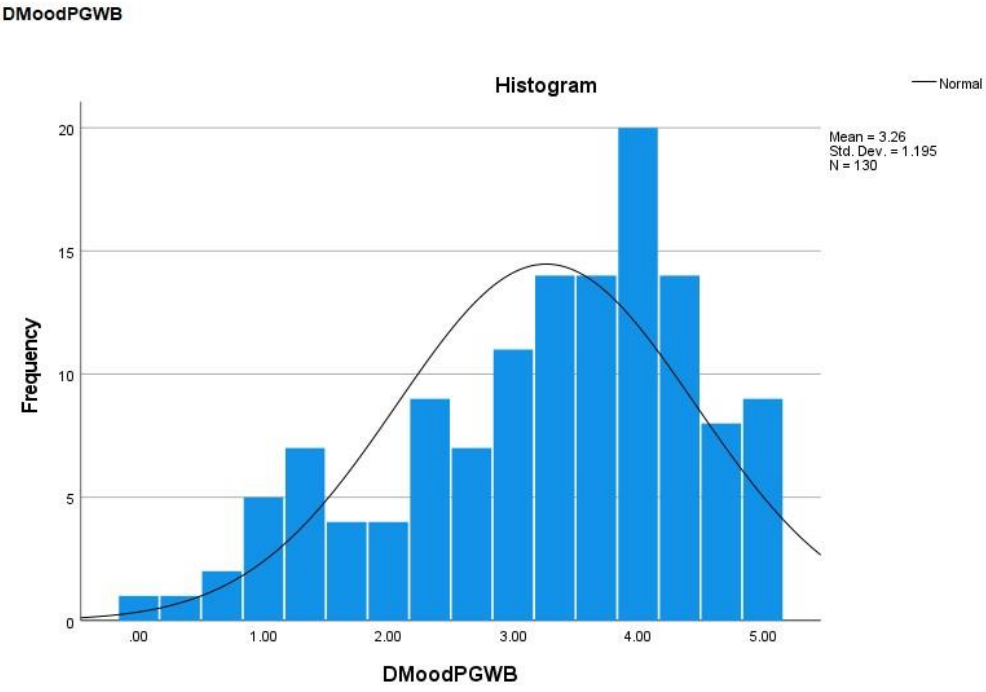

Figure 10

Distribution of psychological general well-being depressed mood scores

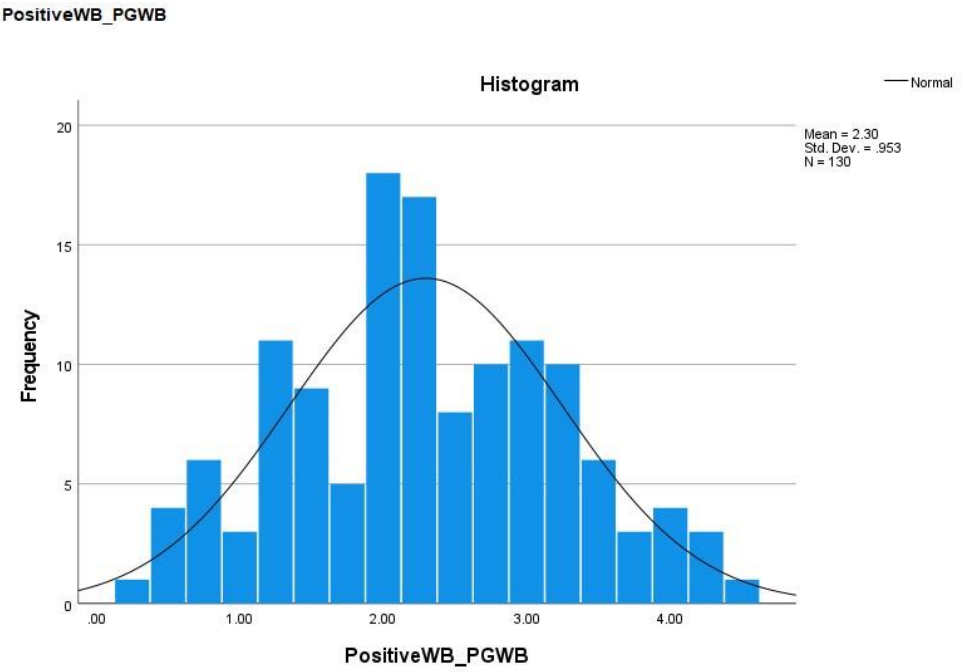

Figure 11

Distribution of psychological general well-being positive well-being scores

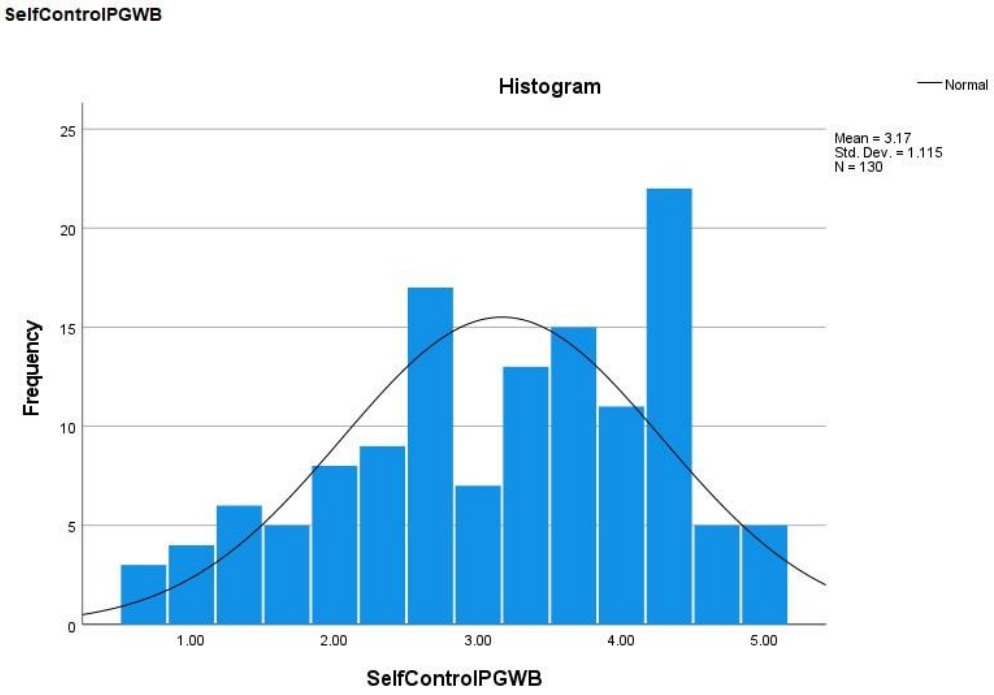

Figure 12

Distribution of psychological general well-being self-control scores

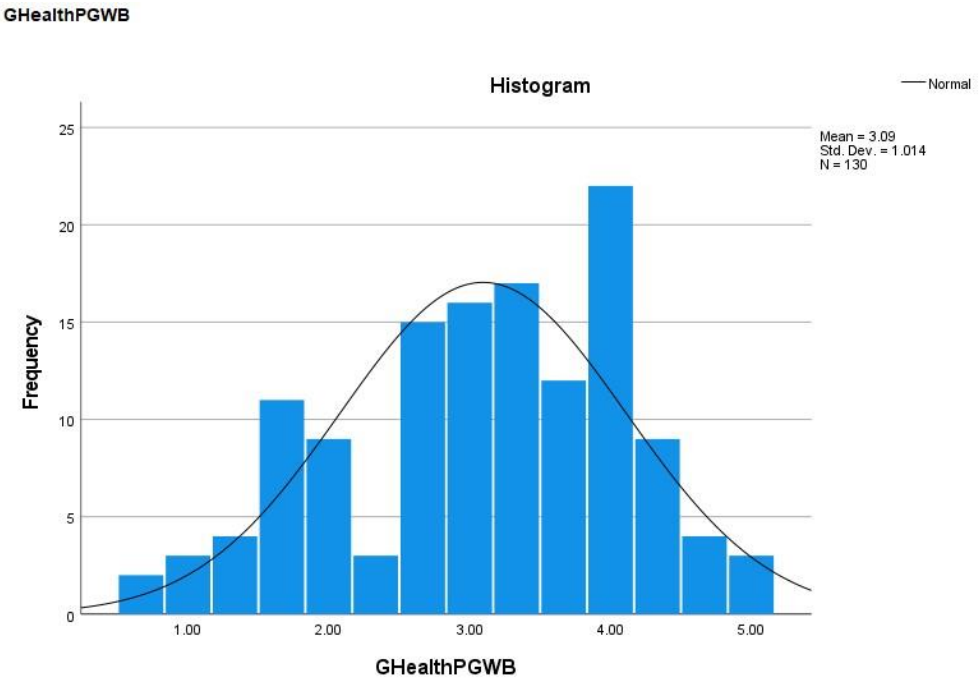

Figure 13

Distribution of psychological general well-being general health scores

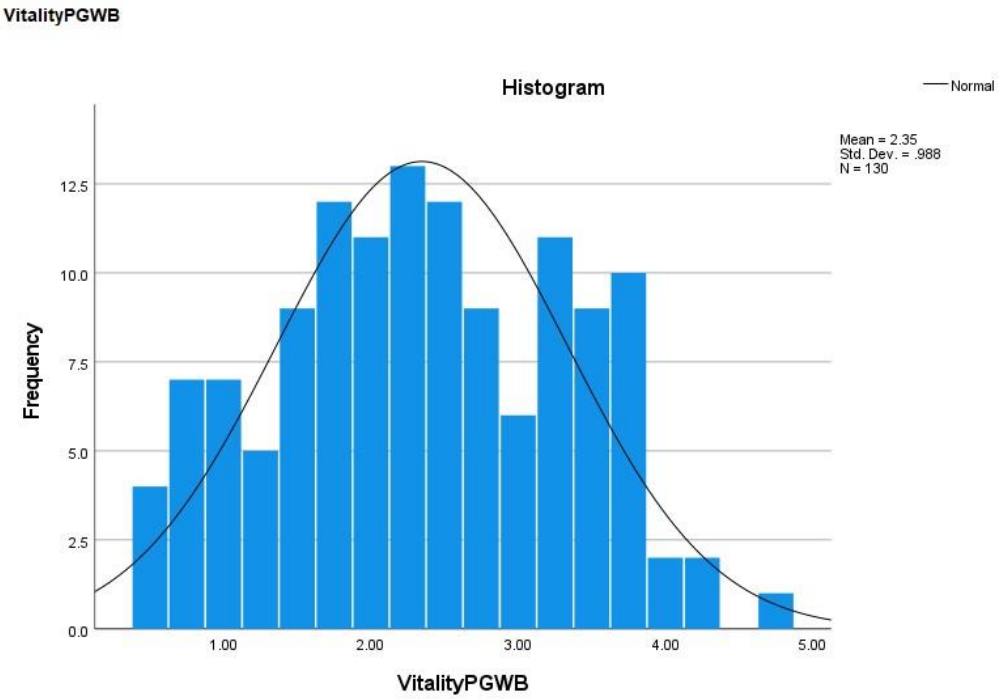

Figure 14

Distribution of psychological general well-being vitality scores

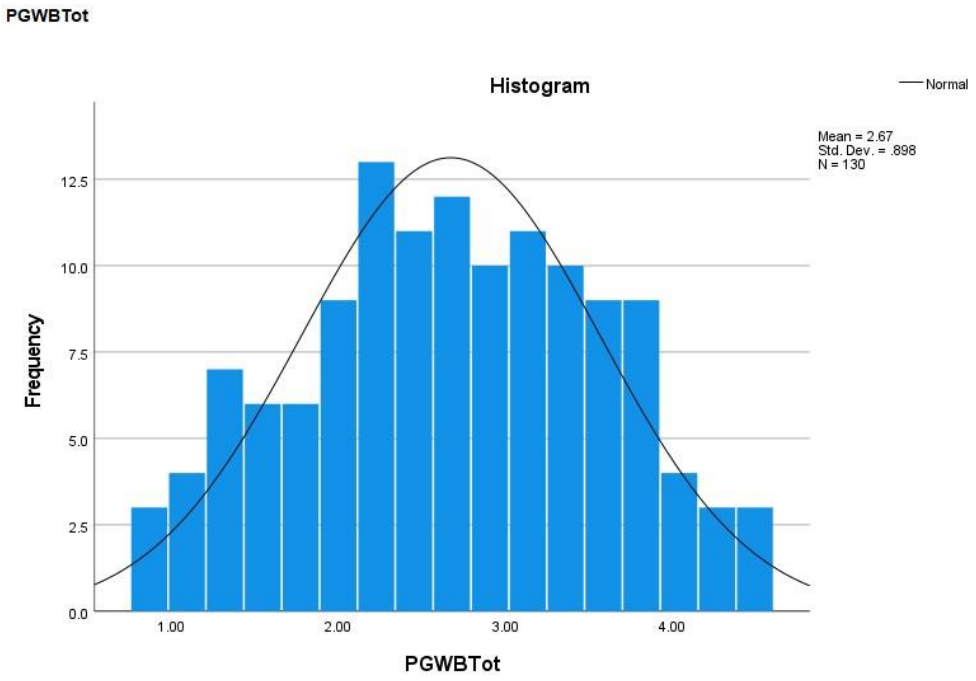

Figure 15

Distribution of psychological general well-being overall scores

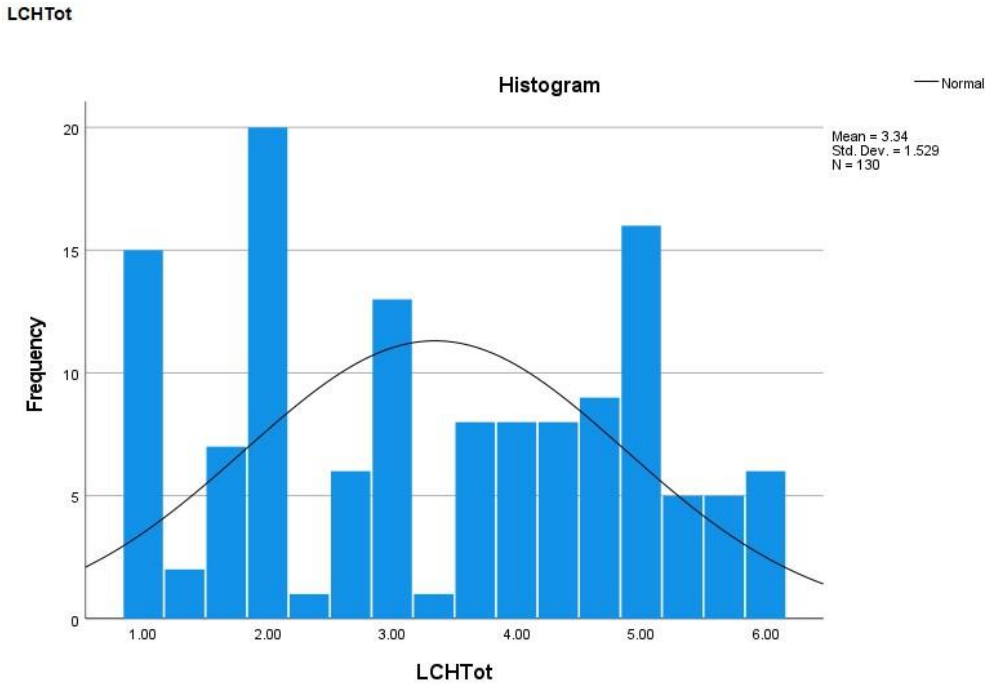

Figure 16

Distribution of leaders creating hope scores before transformation

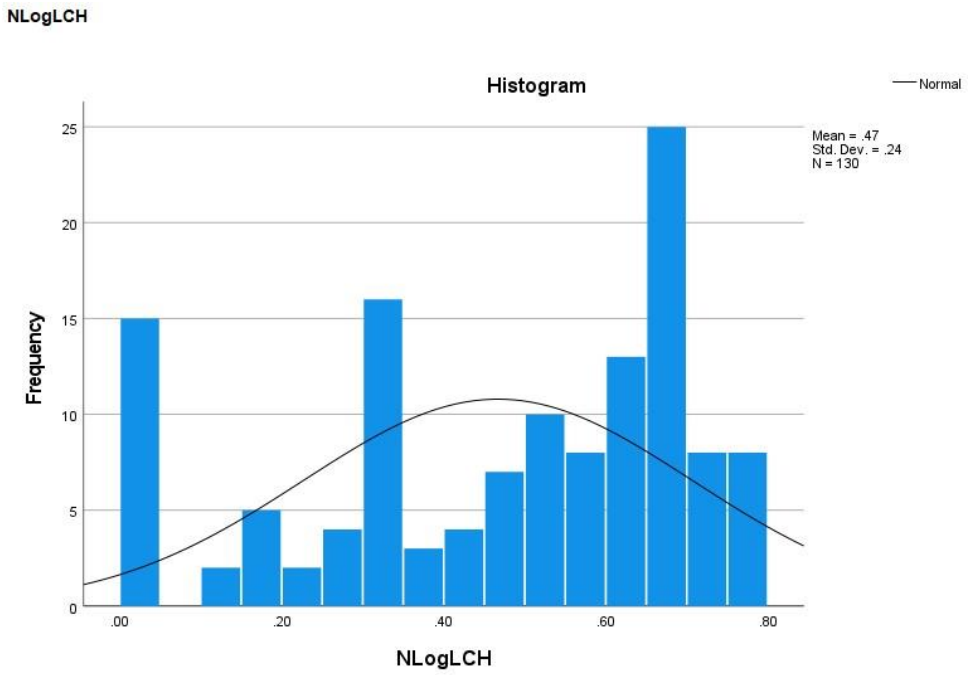

Figure 17

Distribution of leaders creating hope scores after transformation

Appendix M: Tests of normality

Table 5

Tests of normality for the variables

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
South African Financial stressors	.08	130	.04	0.98	130	.10
South African Health stressors	.12	130	.00	.97	130	.01
South African Relational stressors	.09	130	.01	.98	130	.02
South African Environmental stressors	.07	130	.20	.98	130	.06
South African Work-related stressors	.07	130	.09	.97	130	.01
Overall South African Socio-Economic stressors	.08	130	.06	.99	130	.24
Psychological General Well-Being Anxiety	.09	130	.01	.97	130	.01
Psychological General Well-Being Depressed Mood	.13	130	<.001	0.94	130	<.001
Psychological General Well-Being Positive Well-Being	.09	130	.01	.98	130	.12
Psychological General Well-Being Self-Control	.12	130	<.001	0.95	130	<.001
Psychological General Well-Being General Health	.12	130	<.001	.96	130	.00
Psychological General Well-Being Vitality	.09	130	.01	.98	130	.02
Overall Psychological General Well-Being	.06	130	.20	.98	130	.13

Appendix N: Boxplots for leaders creating hope and South African socio-economic stressors

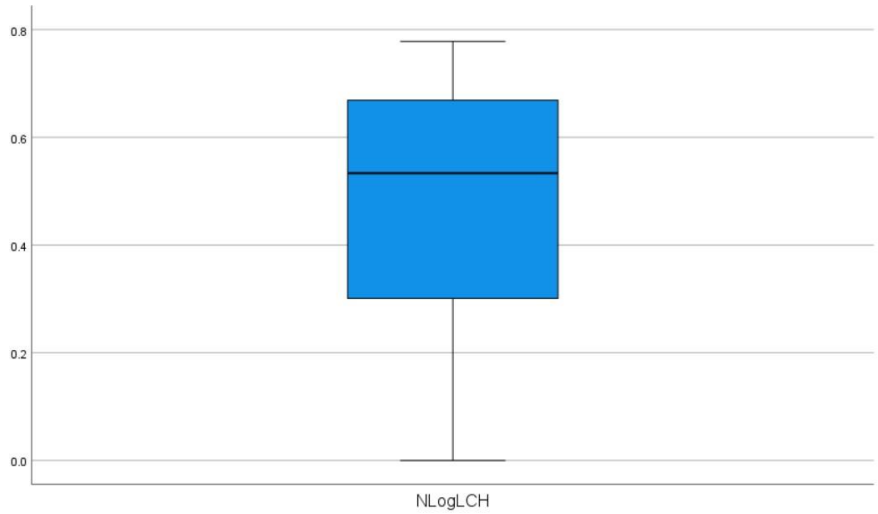

Figure 18

Boxplot for transformed leaders creating hope

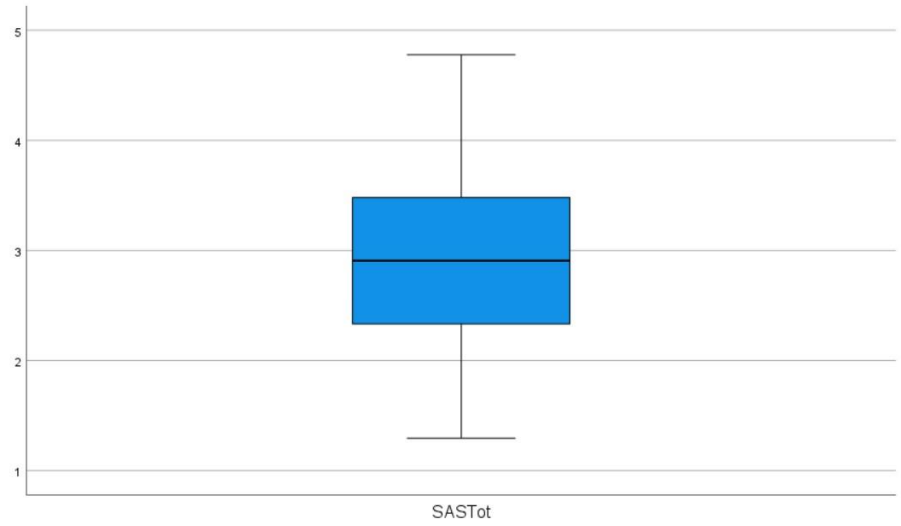

Figure 19

Boxplot for South African socio-economic stressors

Appendix O: Scatterplots for South African socio-economic stressors, psychological general well-being, and leaders creating hope to establish linearity

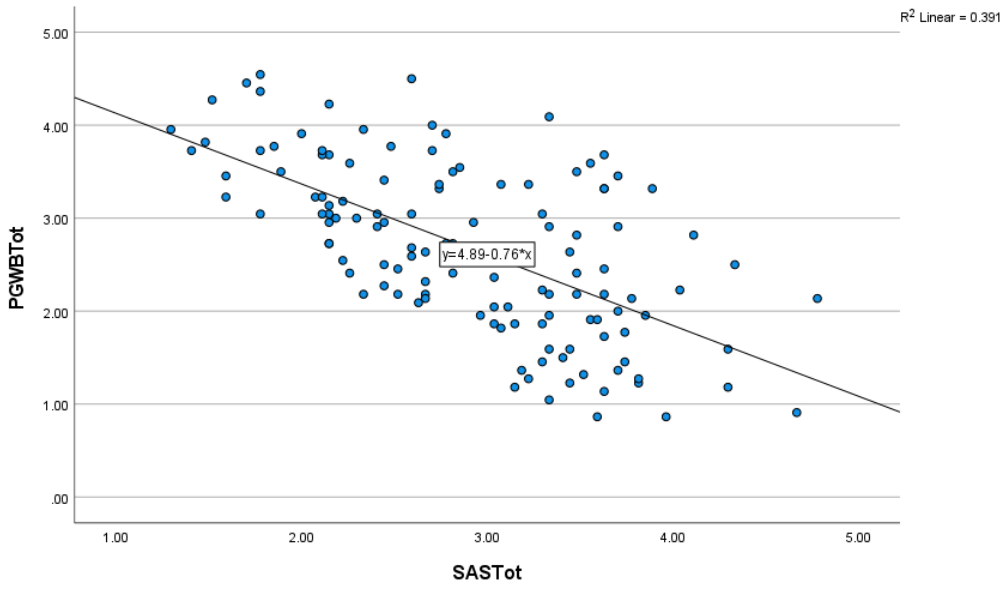

Figure 20

Scatterplot for South African socio-economic stressors and psychological well-being

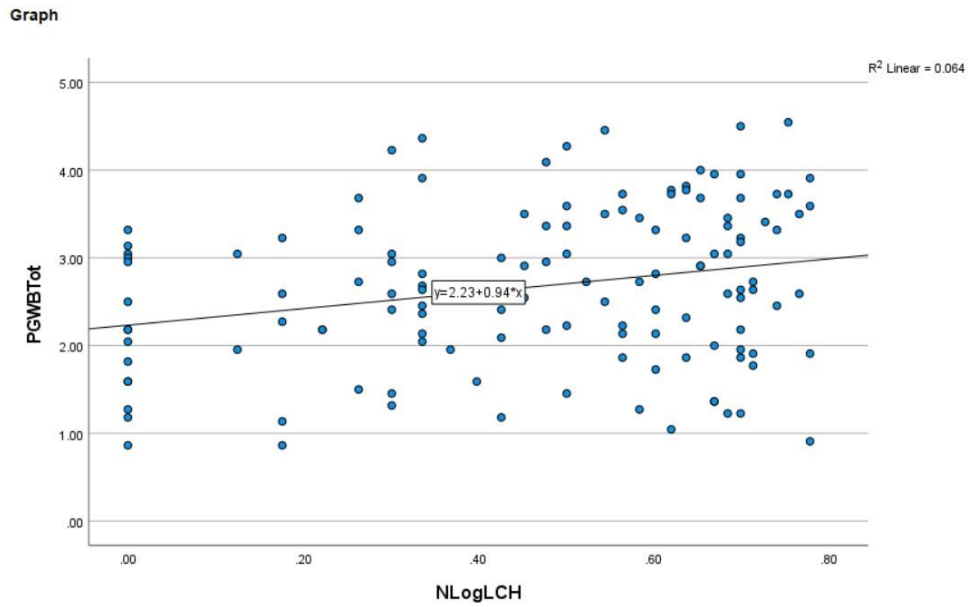

Figure 21

Scatterplot for leaders creating hope and psychological well-being

Appendix P: Boxplots for psychological general well-being

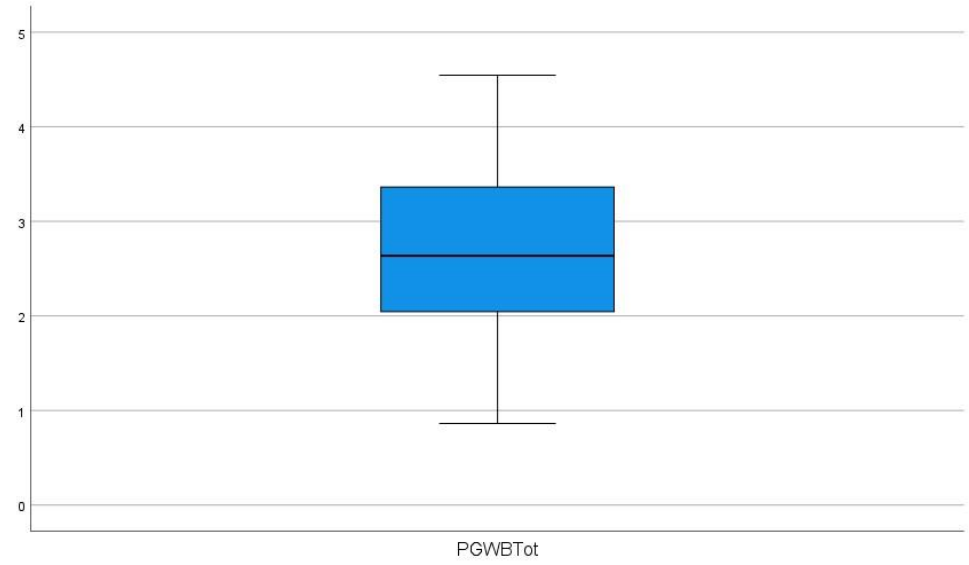

Figure 22

Boxplot for psychological general well-being

Appendix Q: Linear regression scatterplots (standardised and residual)

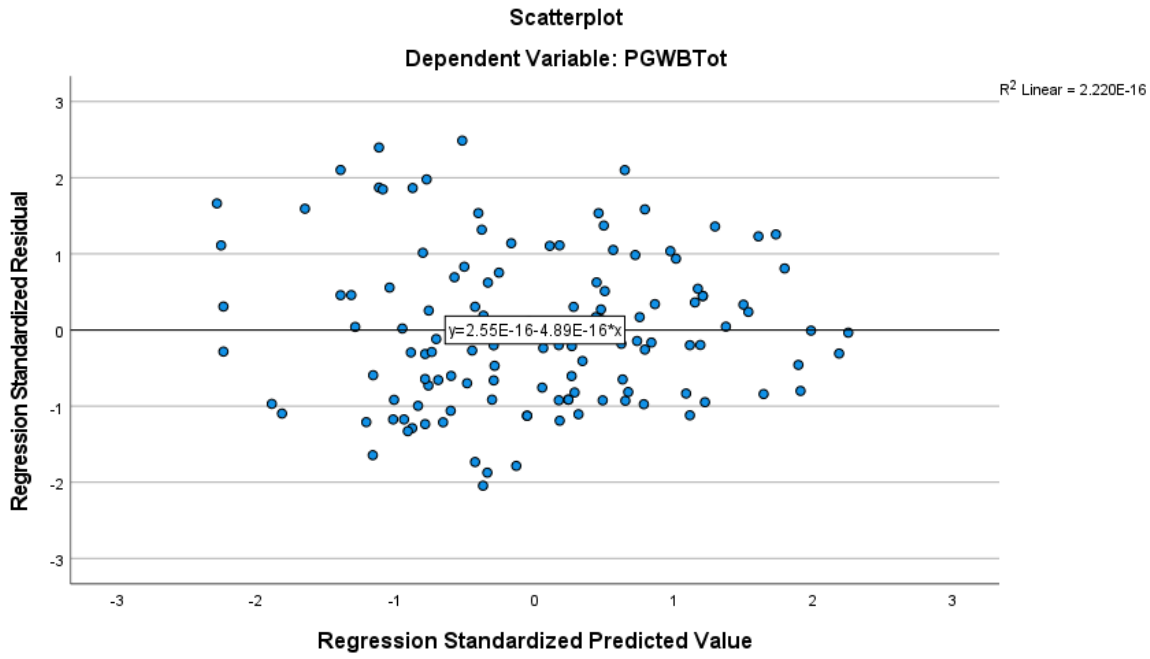

Figure 23

Linear regression scatterplot

Appendix R: Distribution of the standardised residuals

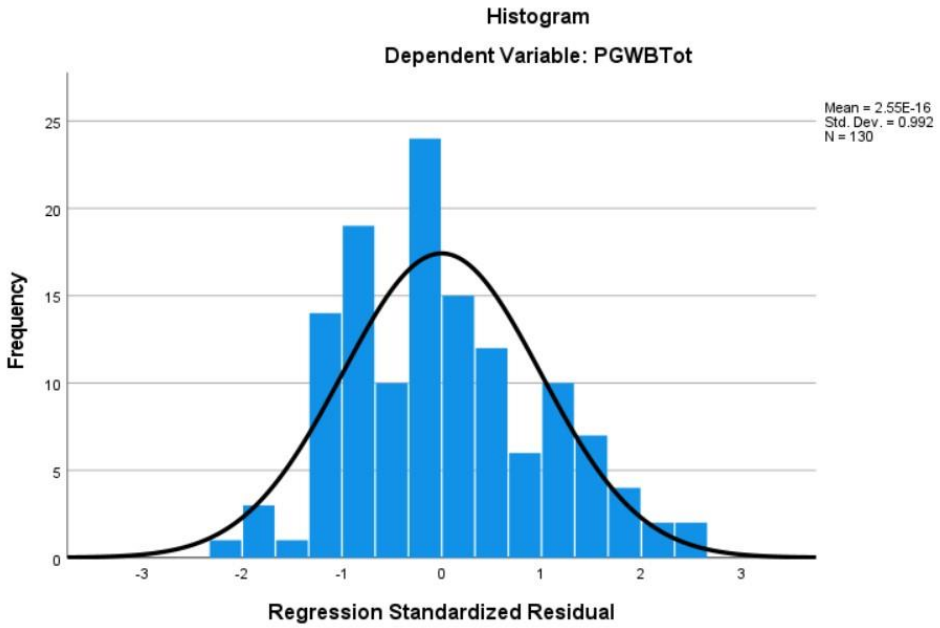

Figure 24

Distribution of the standardised residuals