THE IMPACT OF LOCUS OF CONTROL ON THE RELATIONSHIP BETWEEN STRESS AND THE WELL-BEING OF SINGLE MOTHERS

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ABSTRACT

TITLE: The impact of locus of control on the relationship between stress and the well-being of single mothers.

The study was conducted to establish the relationship between stress and well-being, and whether locus of control moderated the relationship between stress and well-being. Data was collected from 160 single mothers using an online questionnaire as well as a pen to paper questionnaire. The Brief locus of control scale, Perceived Stress Scale and the WHO-5 well-being index were used. A quantitative technique was employed, and data was summarised using descriptive statistics. Pearson Correlation was administered to assess the relationship between stress and well-being and Multiple Regression Analysis, to assess the moderation effect of locus of control on the relationship between stress and well-being. The results concluded that there is a negative relationship between stress and well-being. Locus of control was not a significant moderator of the relationship between stress and well-being. The study is significant as it seeks to influence the improvement of family units headed by single mothers.

Keywords: *Impact, moderation, Multiple Regression Analysis, Pearson Correlation, relationship, locus of control, single mothers, single parenting, stress, well-being*

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CHAPTER 1 : INTRODUCTION

1.1 Introduction

A Gallup poll published on 5 March 2020 stated that 13% of the world's women population aged 18 to 60 years old are single mothers living with children in their households. This proportion is even higher in Sub-Saharan Africa, with 32% of the women population aged 18 to 60 years old, being single mothers living with children (Crabtree & Kluch, 2020).

In South Africa alone, 46% of children aged between 0 and 6 years old were staying with their mothers only and the number of single mother- headed households have been on the increase (Statistics South Africa, 2018).

Single parents experience unique and troublesome circumstances that directly have an impact on child development as compared to married parents. They also face many difficulties as they shuffle various jobs, in contrast to married parents (Sonubi, 2010). Working single mothers have a higher responsibility towards their children than working married parents, as they assume the function of both mother and father, while also being employed (Bucher-Koenen et al., 2020).

An interest in the evaluation and management of stress levels in single mothers coupled with the double burden of employment as well as child care was triggered by the rise in proportion among Sub Suharan -Africans with particular attention to South Africa (Crabtree & Kluch, 2020) and the increasing trend observed in South Africa coupled with the double burden of working and raising children, triggered an interest in assessing the stress level among these single mothers and how they cope with the stress. Before clarifying the research problem, the statistics on single mothers are presented below.

1.2 Statistics pertaining to single mothers

There has been an expansion in the number and rate of single mothers in society (Lu et al., 2020; Morawetz & Walker, 1984; Zagel & Hübgen, 2018). Though the rise in numbers is recorded worldwide, the rise takes place at different rates in different countries (Zagel & Hübgen, 2018). Elliott, Powell and Brenton (2015) noted an unmistakable ascent in the proportion of single mothers in South Africa as compared to single fatherhood. Statistics South Africa reported in 2009 that the number of female-headed families was 31.2% and in 2011 that it had increased to 39.4% (Statistics South Africa, 2009; 2011). This proportion further increased to 41.4% in 2016 (Maluleke, 2016).

The increase in the rate of single mothers has been more prominent than that of single fathers. The most recent Statistics South Africa (2019) report stated that most of the children in South Africa live with their mothers only (43,1%), while a much smaller portion (3,3%) were in single fatherhood households. The statistics thus indicate an expansion in the number of single mothers in society. Although there can be various reasons for this, the increase has been alarming in modern times (Parkes et al., 2015). Not just has the number of single mothers increased in South Africa, it has expanded significantly worldwide.

1.3. Research problem

The above statistics demonstrate clearly that the number of single mothers is expanding rapidly in South Africa. Previous research in other regions indicated that single mothers experience high stress levels as compared to their married counterparts (Chanda & Pujar, 2018). Stress is more likely to be higher among working single mothers as they have the double burden of taking care of their children and working (Hashim et al., 2015). It was also found that high-stress levels hamper one's well-being (Sumra & Schillaci, 2015). Despite the increasing

proportions of single mothers, little literature could be found indicating an attempt to try and understand the stress levels that working single mothers experience, and how they cope with raising children and working at the same time.

Thus, the current study focused on the stress levels of single mothers, their well-being levels and the possibility of locus of control moderating this relationship. This moderator namely locus of control, was selected as the researcher could not find a study on single motherhood where locus of control was investigated as a possible moderator of the effect of stress on well-being.

1.3.1 Objective of the study

Fundamentally, the study`s objective was to establish whether locus of control moderates the impact of stress on the well-being of single mothers.

The main objective was split into the following objectives based on existing literature,

1. To determine the relationship between stress and well-being.
2. To determine whether locus of control acts as a moderator on the relationship between stress and the well-being of single mothers.

1.3.2 Research questions

The research questions are:

- Is there a relationship between stress and well-being of single mothers?
- Does locus of control moderate the relationship between stress and the well-being of single mothers?

1.3.3 Hypothesis

In the current study the following hypotheses were explored:

Hypothesis 1

H0: There is no relationship between stress and the well-being of single mothers.

H1: There is a negative relationship between stress and the well-being of single mothers.

Hypothesis 2

H0: Locus of control does not moderate the relationship between stress and the well-being of single mothers.

H2: Locus of control moderates the relationship between stress and the well-being of single mothers.

1.4 Research method

The study used a quantitative technique and adopted a cross-sectional survey design. Data was collected from a range of respondents from different age, racial, and socio-economic backgrounds, at a specific time frame. The study was embedded in the positivist paradigm.

1.4.1 Sample and sampling

The population of interest consisted of single mothers who were 18 years old or older - who were living with their child or children within the 0 - 6 years age group at the time of the study. The respondents may have lived with other people and may have received support from family and friends. The respondents were either widowed, separated, divorced, or unmarried. The respondents were employed and resided in the northern suburbs of Johannesburg. Purposive sampling was utilised to draw the sample. Posters *(see Appendix 2)* and social media, including

Facebook and Twitter were utilised to enlist single mothers who were keen on partaking in the study. The sample was made up of 187 respondents, aged 18 to 38 years.

1.4.2 Research instrument

Three scales were used. One for each construct to be measured to gather data for the current study. These were the *Perceived Stress Scale* measuring stress levels (Cohen & Williamson, 1988), the *Brief Locus of Control Scale* measuring locus of control (Lumpkin, 1985), and the *WHO-5 Well-being Scale*, measuring well-being (Saipanish et al., 2009). The three scales were combined into one questionnaire. There was also a biographical section that was used to verify that the respondent was eligible to participate in the study *(see Appendix 1).* It was also used to obtain demographic data such as age, race, and income of respondents.

1.4.3 Data collection

The respondents either completed an online questionnaire or a pen to paper questionnaire. The online questionnaire was administered on Qualtrics and willing respondents were sent a link to access the survey whilst the pen to paper questionnaire was handed out to respondents. An aggregate of 105 respondents completed the online questionnaire, whilst 82 completed the pen to paper questionnaire, adding up to 187 completed questionnaires.

1.4.4 Data analysis

A total of 160 questionnaires were analysed after data cleaning. Descriptive statistics such as the standard deviation, mean, and frequencies were used to describe the sample and gain a clearer understanding of the sample from which the data was collected from. Exploratory factor analysis (EFA) was conducted to assess the validity of the scale in the South African setting, while Cronbach's Alpha values were computed to assess reliability of the scales.

Pearson Correlation was conducted to ascertain whether there was a correlation between stress and well-being, while multiple regression analysis was administered to explore whether locus of control moderated the impact of stress on well-being.

1.4.5 The significance of the study

The study is academically relevant as it contributes to stress literature by providing more information on how locus of control influences the relationship between stress and well-being. It is also relevant within the South African setting as it sought to influence the improvement of family units that are headed by single mothers. The research contributed to examining the possible impact of empowering single mothers on locus of control as a strategy for preventing high-stress levels, and consequently promote their well-being. Zhang and Bartol (2010) support this approach by stating that when single mothers are empowered, they have control over situations, which in turn keeps them motivated and directed towards the achievement of well-being.

Although the study has focussed only on a particular area in Johannesburg, similar conditions have been witnessed all over the world. The study may contribute to the scientific literature informing interventions that try to effect positive social change within communities. It might also increase awareness of the difficulties encountered by single mothers and possibly lead to the development of support networks for single-mother households.

1.5 Ethical issues

Ethical clearance was granted by the College of Human Sciences Research Ethics Review Committee of the University of South Africa. The general principles for ethics were followed, namely integrity, beneficence and non-maleficence, justice, fidelity, and responsibility and respect for people`s rights and dignity proposed by the American Psychological Association (APA, 2017). This is discussed in more depth in Chapter 3 which is the Methodology chapter.

1.6 Definitions of keywords

For the purpose of the current study, the following definitions of keywords have been adopted:

Locus of control: The level of control one believes to have on the events that affects one (van Dyk et al., 2017).

Single mother: A woman that, for whatever reason, raise a child or children under the ages of six, on her own.

Stress: The belief that external demands can no longer be dealt with using one`s adaptive capacity (Cohen et al., 1995)

Well-being: The positive assessment of one`s life (Tov, 2018).

Young child: A child that is aged between 0 and 6 years old.

1.7 Summary and overview of study

In this chapter, the rise in the occurrence of single mothers was discussed and the research problem was formulated. This was trailed by stating the research objectives, the research questions - which were obtained from the research objectives - and the hypotheses. Finally, the key terms were defined.

In **Chapter 2** single parenting and single motherhood are further unpacked while the main variables, namely stress, well-being, and locus of control are discussed. **Chapter 3** focuses on the study's methodology, describes the method, discusses the positivist paradigm, data collection, data analysis, participant sampling and ethical issues. **Chapter 4** presents the results of the current study while **Chapter 5** presents a discussion of the results. Finally, **Chapter 6** provides a conclusion to the study, the study`s limitations and recommendations for the future research.

CHAPTER 2 : LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

Chapter 2 introduces the three core research variables to be examined which are stress, locus of control and well-being. The chapter will start with a general discussion on single parenting and single motherhood. The relationships among the three variables namely stress, well-being and locus of control, are also outlined. The chapter concludes with a conceptual framework that was developed from the literature.

2.2 Single parenting

Single parenting has become more common in our modern society (D`Mello et al., 2016; Thomas, 2015) . Single parenting is defined as a circumstance where children are raised by one parent in the absence of the other parent (Gongla & Thompson, 1987; Keller et al., 1978). It can also be defined as an act by which the daily responsibilities of childcare befall a parent living without a spouse or partner (Prakash et al., 2015; Stephen & Udisi, 2016). The concept is of common existence, considered as old as humanity. This family dynamic have recently become more common than the nuclear family because of the advent of industrialisation as well as globalisation (Stephen & Udisi, 2016). In addition, this type of family unit is one example among a variety of possible family units in our current society (Golombok, 2000). Single parenting can either refer to a single mother or a single father (Gongla & Thompson, 1987).

Divorce, death of a parent and single parent adoption to name a few, are some of the causes of single parent families in society, with divorce topping the list. Historically, separations between couples were rare as compared to today and most single parent homes resulted from a parent's

death. In the case of divorce, the issue of single parenthood refers to physical custody, that is, which parent the child gets to live with after separation. These arrangements have been considered detrimental to normal child development, as well as affecting the child's future relationships because they lack foundations to base long-term commitments (Stephen & Udisi, 2016).

Single parenting is also as a result of single parent adoptions that came to common existence during the 19th century. It, however, faced much opposition as married couples were deemed desirable. This is due to the fact that society has stigmatised single parents and labelled them as a group which possesses characteristics which convey a devalued social identity (Stack & Meredith, 2018). Eventually it slowly became permissible when referred to as cases of "exceptional circumstances" (Stephen & Udisi, 2016, p. 6). The dynamic from such circumstances is regarded as cases of single parenting by choice (Golash & Turkulainen, 2018).

Studies have suggested that single parenting has impacted on various entities including the psychology of those involved. It was reported that children from single parent homes are disadvantaged and lack quite a number of resources. It was reported that children from single parent homes start showing objectionable behaviour in their adolescence years (Stephen & Udisi, 2016). However, other authors reported that there was no link between children's behaviour and their parents' single status (Agnafors et al., 2019). This reminds one that many variables play a role in these circumstances.

In the case that the single parent fails to cope with the double responsibility, children may be rendered societal misfits as children's academics and well-being are overlooked. The loss of

parental support and supervision therefore negatively affects the children's well-being, while the pressure of double responsibility on parenting results in emotionally distressed parents (Wisconsin Family Impact Seminars,1991). It thereby shows that single parenthood has major effects on both the children and parents. Single parenting may also affect children in the sense that some children end up having more responsibilities in the household, for example, they might end up doing all the household chores because the parent will be working most of the time. In addition, children raised by a single parent might become more independent as they grow up (Mbithi, 2019). This shows that not all children from single parents are prone to facing exceptional challenges in their lives (Weinraub & Kaufman, 2018).

Single parenthood results in almost all economic responsibilities falling on the parent remaining with the child's physical custody, hence such set ups are characterised by economic hardships (Ozturk, 2014). In most cases of divorce or separation the other parent without custody tends to provide economically, however, the level of income is lower than that in dual parenting situations. This is more strenuous in mother-only families as women have lower earning capacities and could be victims of gender discrimination as well (Maldonado & Nieuwenhuis, 2019). Economic hardships in single parent homes, therefore, result in expenditure reduction as a means of meeting needs, as well as surviving the characteristic economic instability of today's world (Ozturk, 2014). Single parent families are at a disadvantage because of high poverty rates as compared to their counterparts (Sok & Shin, 2010). A parent is said to be in the least desirable class if they are poorly educated, have a low income, are black, and are unmarried (Waller & Jones, 2014). Simpson (2010) asserts that despite singleness being scriptural, and is from God, it is an extremely hard method of parenting. Hence, it was reported that single parents needs to be prayed for and need companionship from those around them (Mbithi, 2019).

The issue of solo-parenting, a strongly gendered concept in which most are females, is both intentional through single parent adoptions and unintentional in cases of death or separation in families (Maldonado & Nieuwenhuis, 2019; Stephen & Udisi, 2016). The issue of single parenthood is also common in male parents mostly as a result of spousal bereavement (Chiu et al., 2018), however, studies suggest that they tend to receive more assistance especially child care from family members and communities, than their female counterparts (Ozturk, 2014). As much as this family set up has become popular with time, it has detrimental effects on both the single parent and children.

Research has revealed that single parents could succumb to poor health in terms of their mental and psychological state (Stack & Meredith, 2018). This is due to high stress levels and low economic resources to mention a few, regardless of full-time employment. As much as it has been suggested that solo-parenting positively correlates with poor health disparities and high mortality, much attention has been paid on the female single parent and little is known of their male counterparts (Chiu et al., 2018).

2.3 Single motherhood

Parenthood involves sharping the character of your children. Parents should equip their child(ren) to face challenges that comes with growing up (Jiménez-Iglesias et al., 2017). It is the obligation of the parent to make sure that the children are guided to grow to be responsible people in society and be masters of their own destinies. In modern society, this role is diminishing especially among single mothers. It was reported that the role of a single mother is a challenging one (Kotwal & Prabhakar, 2009).

Societies around the world expects its members to marry and have children (Mapara & Thebe, 2015). In Africa, marriage is seen as the unification of society members. Women and men are

expected to marry and have children which will sustain the community (Simms & Johnson, 2012). Single motherhood or single fatherhood is seen as moving away from society norms. In most countries, individuals who do not follow norms are labelled as deviants (Forsyth & Johnson, 1995). Those who do not follow norms are subject to different kinds of pathologies. In some cases single motherhood is not taken seriously because it is viewed as a temporary situation where one can stay as a single mother or decide to marry again (Zagel & Hübgen, 2018).

Choi (2010) reported that single mother households are prone to poverty and they endure hardships which creates problems for the society. Single mothers have many responsibilities including struggling to make ends meet due to few or a lack of economic resources and trying to take care of their children alone (McKenzie & McKay, 2018). It was reported that in situations where single mothers receive maintenance support, the amounts received were very low and not enough to cover their expenses (Hakovirta & Jokela, 2019).

In Slovenia, single mothers were viewed as prostitutes and labelled as bad mothers, while their offspring were not viewed as part of the society (Leskosek, 2011). This led to single motherhood being unheard of and it was termed as a temporary situation because the woman would marry at any time (Avison, 1997). The modern era has since changed these traditions and single motherhood is now recognised as an acceptable parenting situation (Leskosek, 2011).

It was reported that single mothers are most likely to reside in extended household structures and in most cases they lived with their children and other people (Jansen van Rensburg, 2017).

In South Africa, it is reported that by the age of 45 years, sixty percent of adult females are more likely to be single, this could be either by desertion, separation, divorce, death or by choice (Berg & Johansson, 2014). The reasons for single motherhood in South Africa are discussed below.

2.4 Reasons for the increased rate of single motherhood in South Africa

Apartheid policies in South Africa led to single motherhood whereby men were forced to migrate to the cities to work and they were not allowed to live with their wives and children in cities and towns (Hosegood et al., 2009). Although apartheid has ended in 1994, the effect of these policies are still seen today (Mhlauli et al., 2015). Apartheid policies also introduced the commercialisation of lobolo, unfortunately, this led to an increased number of unmarried women in South Africa (Mkhize & Msomi, 2016).

The modern era has witnessed several cases of problematic issues in marriages that often result in divorce. The reason is unhappy marriages that individuals find themselves in. Reasons for divorce could, amongst others, be physical abuse and ego clashes. After divorce, if the father does not claim the custody of the child and wants a free life without providing for the necessities of the children and the ex-wife, the children automatically are in the custody of the mother (Munzara, 2014).

Cohabitation is a situation where an unmarried couple lives together as if married and can lead to single motherhood if the father leaves. Even though a decline in marriages is reported, childbearing is not affected leading to a rise in children born with only one parent present (Moore & Govender, 2013). On the other hand, single motherhood can occur due to an unmarried pregnancy without cohabitation. In these cases, the father of the infant has rejected

taking obligation (Clark & Hamplová, 2013). For many young people, unmarried pregnancy is brought about by peer pressure. In such a case, the mothers are often not able to deny the responsibility of the child and along these lines select to turn into a single mother, where they assume the whole liability of nurturing the infant to make him or her successful (Mwaba & Naidoo, 2005).

The death of a father is another explanation behind single motherhood. The entire responsibility of the child becomes the focus of the mother. Ngwenya (2015) reported that this is the most unfortunate case behind single motherhood.

In the modern era the rise of single motherhood by choice is on the rise. Many single women are independently taking up adoption by choice (Mannis, 1999).. In such cases, individuals perform the role and the responsibility of a single mother. This is, however, viewed as a noble cause of taking up single motherhood by choice. The single mothers in this scenario agree to the terms and conditions of adoption to provide a brighter future to the children whom they have adopted.

The above reasons have thus been highlighted by the researcher, suggesting that these are the most prominent causes in the rise of single motherhood statistics. It was noted that single mothers are faced with several problems ranging from economic crisis, emotional stress to social discrimination (Kotwal & Prabhakar, 2009).

2.5 Challenges faced by single mothers

Single mothers are faced with numerous difficulties in their everyday lives. These challenges include financial problems, the upbringing of children and societal, cultural, and religious challenges. These challenges are discussed below.

2.5.1 Financial problems

It is reported that single mother households have a high poverty rate (Chzhen & Bradshaw, 2012; Crosier et al., 2007; Harkonen, 2018; Kramer et al., 2015; Zagel & Hübgen, 2018). Other authors asserts that being single and early motherhood leads to very low socio economic status (Goodrum et al., 2012). Financial problems among single mothers could be due to several reasons, including insufficient income (Prakash et al., 2015), unemployment or low paying jobs (Mugove, 2017), low level of education, discrimination of wage levels and lack of a second salary (Crosier et al., 2007; Goodrum et al., 2012; Harkonen, 2018). This contributes towards single mothers experiencing difficulties in providing financial support to their children (Mkhize & Msomi, 2016; Mugove, 2017; Nilaya, 2016; Weldegabreal, 2014).

Furthermore, several studies found financial problems to be the fundamental driver of stress in single mothers (Ghani & Hashim, 2013; Kotwal & Prabhakar, 2009; Weldegabreal, 2014). On the contrary, Hashim (Hashim et al. (2015) reported that single mothers were found with relatively low stress on issues related to financials and low stress on relationship issues. In addition, Agero and Guhao (2016) suggested that stress is not just brought about by financial problems but also by excessive responsibilities that burden single mothers in their day to day lives. These differing findings stress the complexity of maternal stress in single parenthood.

2.5.2 Upbringing of children

Single mothers face problems that are linked to raising a child alone (Daryanani et al., 2016; Kotwal & Prabhakar, 2009; Weldegabreal, 2014). Single mothers find it hard to supervise their children's behaviour because they spend limited time with them (Mugove, 2017) which could be due to overworking (Prakash et al., 2015). It was also stated that single mothers are exposed to questions raised by society towards the way they raise their children (Prakash et al., 2015). This shows that single mothers face several kinds of unfavourable incidents (Taylor & Conger, 2017) which will be unpacked in the next section where the role of society, culture and religion in creating challenges towards single mothers are discussed.

2.5.3 Society, cultural and religious challenges

In the community, religion and culture could lead to single mothers facing "stigmatisation, discrimination and rejection" (Essien & Bassey, 2012, p. 248). Such behaviour can be referred to the Indian society which isolated widows from the general public rendering them targets of superstitions as well as backward social attitudes (D`Mello et al., 2016, p. 56). They needed to shave their heads, dress in white, and not eat or go to social occasions after their husbands' deaths. Despite being physically strong and having a good job, single mothers are subjected to unfavorable incidents and abusive words from the society regarding their single motherhood (Sampson, 2017). Single mothers were also seen to be of lesser value (Khosravan et al., 2013). Furthermore, single mothers experience blame and are considered as guilty for living life as single mothers, even from their relatives and extended families (Parkes et al., 2015).

The above discussion shows that single mothers in South Africa and around the world are facing challenges in their daily lives.

2.6 Challenges faced by children raised in single mother household

Holborn and Eddy (2011) states that in 2008, 43% of children in South Africa were living in single parent homes. These numbers increased to 47,6% in 2016 where it was recorded that children aged between 0 to 6 years were living in single parent homes (Statistics South Africa, 2018).

The difficulties that are frequently faced by children raised by single mothers are not just the parenting styles, but also poor economic conditions of their families (Paschall & Mastergeorge, 2018). Codsi (2019) commented that children from single mother households will probably engage in pre-marital sex as contrasted to those who are brought up by both parents. This is a circumstance that is predominant in today's single mother families. This exposes the children to the risk of contracting sexually transmitted diseases like HIV/AIDS and makes them prone to teen pregnancy. Weitoft et al., (2003) indicate in their study that children in single mother households are probably going to commit suicide, be involved with drugs, suffer from psychiatric disorders and experience mental health issues (Daryanani et al., 2018).

The foundation of Bandura's social learning theory is built on the presumption that behaviour is learned through observation (Bandura, 1971), children raised by one parent are at a disadvantage when it comes to learning behaviour from both mother and father and this can affect the way they perceive their surroundings (Ali & Soomar, 2019).

2.7 Well-being

Well-being is a comprehensive concept. It is regarded as a multidimensional construct with both Colombo (1986) and Sanderson (2004) specifying psychological and physical dimensions thereof, while Colombo added a social dimension. Well-being includes life satisfaction, social

well-being and personal development (Campion & Nurse, 2007; Marks & Shah, 2004). Other researchers define well-being as a state whereby a person understands what he or she is capable of, is able to cope with stressful situations, can be productive and can make contributions in his or her community (Natvig et al., 2003).

To help define well-being, two important approaches emerged which are the hedonic approach and the eudaemonic approach (Wissing et al., 2006). These two approaches lead to broad research on well-being (Huta, 2015).

2.7.1 Hedonic approach / Subjective well-being (SWB)

The hedonic approach also known as subjective well-being (SWB) is defined as the subjective feeling of happiness (Kahneman, 1999). SWB is about the assessment of one`s life including having a positive mindset and lack of negative emotions (Diener et al., 1997). In SWB, cognitive assessment is described as the assessment of one`s life. Affective assessment is describe as the "positive or negative emotions" (Babar Dharani, 2014, p. 37) that individuals experience (Diener et al., 1997). Subjective well-being can be used similarly with happiness (Diener et al., 1999). Individuals view and react to situations differently depending on their values, experiences and what they expect from the situation (Schreuder & Coetzee, 2011). There are three components of SWB that were proposed by Diener (1984), namely "life satisfaction, positive/pleasant affect, negative/unpleasant affect" (Diener, 1984, p. 542) and domain satisfaction. Table 2.1 reflects the components of subjective well-being.

Table 2.1: Components of subjective well-being

Pleasant affect	Unpleasant affect	Life satisfaction	Domain Satisfaction
Joy	Guilt and shame	Desire to change life	Work
Elation	Sadness	Satisfaction with current life	Family
Contentment	Anxiety and worry		Leisure
Pride	Anger	Satisfaction with past	Health
Affection	Stress	Satisfaction with future	Finances
Happiness	Depression	Significant others` views of one`s life	Self
Ecstasy	Envy		One's group

Note: Retrieved from "Subjective well-being: Three decades of progress", by E. Diener, E. M. Suh, R.E. Lucus and H. L. Smith, 1999, Psychological Bulletin, 125 (2), p. 278. Copyright 1999 by the American Psychological Association.

2.7.2 Eudemonic approach / Psychological well-being (PWB)

The eudemonic approach also known as psychological well-being (PWB) is viewed as one being fully functioning and having purpose and meaning (Tweed, 2016). PWB is how individuals have power over their lives and activities that are meaningful (Ryff, 1989). It can be referred to eudemonic well-being, which embodies positive skills that facilitates optimal functioning. There are six definite components of positive psychological functioning namely "self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery and autonomy" (Ryff & Keyes, 1995, p. 719). A visual presentation of core dimensions of psychological well-being is shown in Figure 2.1.

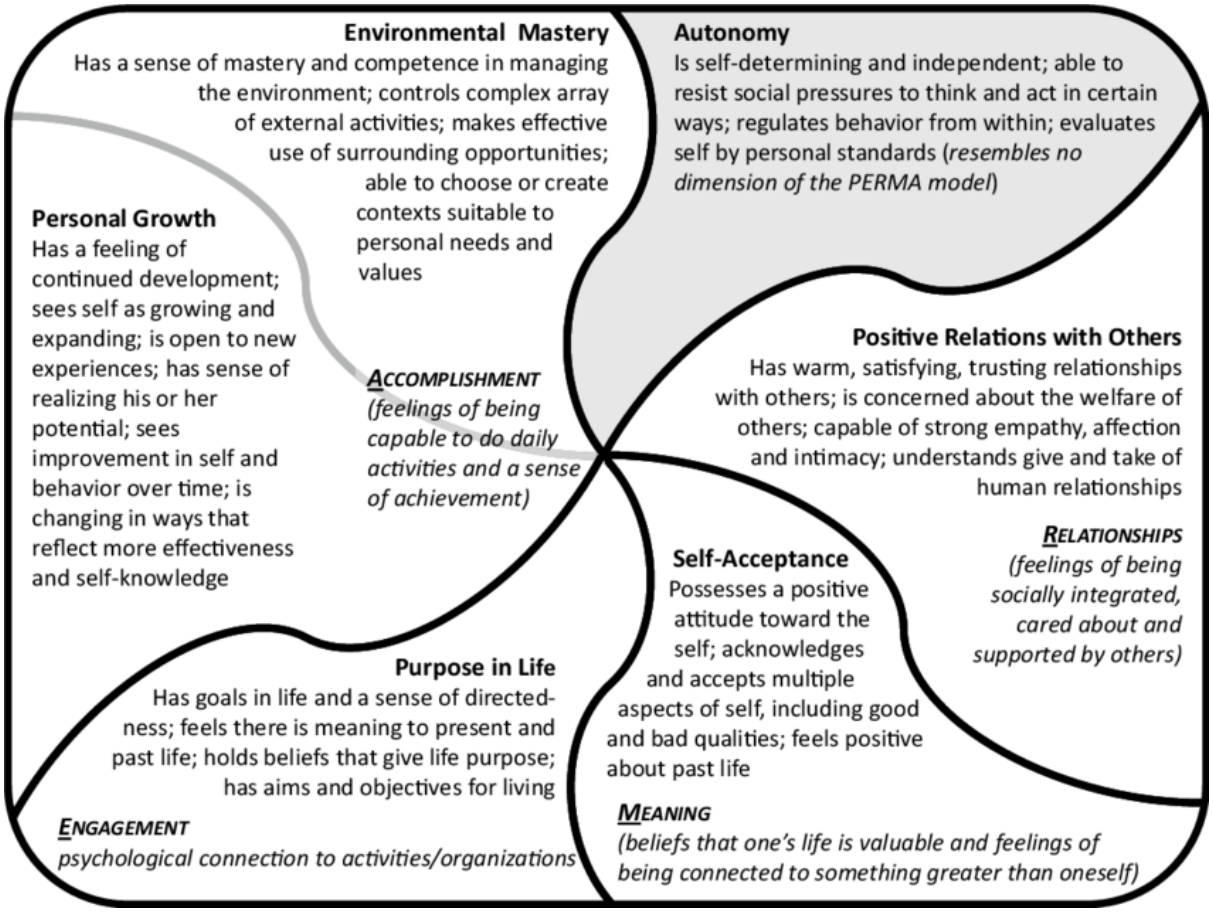


Figure 2.1: Dimensions of psychological well-being according to Ryff

Note: *The above is a summary of the dimensions of psychological well-being as from "Resilience, risk, mental health and well-being: associations and conceptual differences", by F. Schultze-Lutter, B. G. Schimmelmann, and S. J. Schmidt, 2016, European Child and Adolescent Psychiatry, 25 (5), p. 464.*

The above dimensions led to a puzzling research base for defining well-being (Pollard & Lee, 2003), however, these dimensions cover all aspects of an individual's life and are interconnected (Dodge et al., 2012).

2.7.3 See-saw definition of well-being

After realising that researchers were focusing more on dimensions of well-being and not providing a definition, Dodge and colleagues redefined the concept. They reported that well-being must be viewed on the basis that there must be a balancing point between one's resources and challenges faced. Well-being was defined as an instance "when individuals have the

psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge" (Dodge et al., 2012, p. 230). A visual presentation of their definition is shown in Figure 2.2.

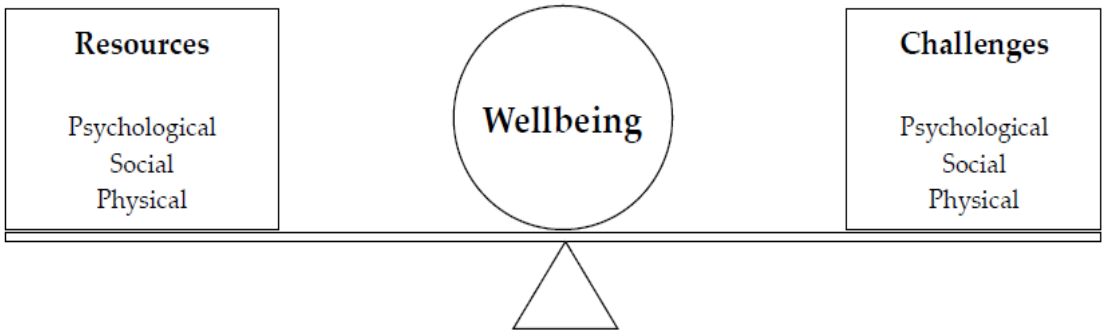


Figure 2.2: See-saw definition of well-being

Note: *The above shows a see-saw presentation of a balancing well-being with resources on the left side and challenges on the right side from "The Challenge of Defining Well-being", by R. Dodge, A. P. Daly, J. Huyton and L. D. Sanders, 2012, International Journal of Well-being, 2 (3), p. 230.*

If resources are more than challenges, the see-saw will drop along with their well-being and vice-versa. For one to have a well-balanced well-being, there is need for a balance in the resources they have and the challenges to be conquered (Dodge et al., 2012).

The above discussion shows that defining well-being depends on what is being researched. In this current study, well-being is defined as the overall way in which individuals positively assess their lives (Tov, 2018). In this case, it is how single mothers view their lives in a positive manner.

2.7.4 Well-being as a concept of positive psychology

Positive psychology is centred on assisting people to thrive in their day to day lives by providing skills needed to cope with stressful events (Green, 2012; Keyes & Haidt, 2003). Well-being is viewed as a major concept in positive psychology (Sanjuan, 2014). Most

researchers of well-being describe positive psychology as a scientific paradigm, which encourages growth in individuals so that they thrive in all facets of their lives (Duckworth et al., 2005; Snyder & Lopez, 2002). It focusses on exploring what truly makes life valuable (Seligman & Csikszentmihalyi, 2000). Booth (2013) added that positive psychology having a foundation of strength, gives single mothers a chance to show off their strengths which will help them overcome their challenges, hence increasing their well-being.

Earlier on the researcher brought to light the challenges faced by single mothers in their day-to-day lives. These challenges hinder well-being in single mothers. This study therefore does not seek to find the negatives in the lives of single mothers but seeks to promote well-being among single mothers.

2.7.5 The importance of parental well-being for children

Well-being is considered "a multi-dimensional construct" (Sanjuan, 2014, p. 373), which can be viewed as a construct to determine how people cope with daily stresses (Lauinger, 2015). Therefore, in this case well-being becomes a way of measuring how parents cope; a discipline that has received very little attention in terms of research.

Parental well-being positively correlates with child well-being; hence it becomes an important societal issue. This is more pronounced in infants who are more sensitive to routine changes, parents' irritability and inconsistent parenting arising from parent distress (Lucas et al., 2011). Children raised by supportive parents have an increased psychological well-being (Joussemet et al., 2005). This was backed by Richter et al. (2018) who reported that maternal well-being correlates with positive parenting and child well-being.

It is believed that the more content the mother is, the happier their children are. The concept, however, is not gender neutral. That is, the well- being of both parents is equally important in childcare but the positive well-being of one parent in the case of the other in distress can act as buffer for a child's emotional and behavioural problems (Brophy, 2009).

The well-being of the parent has an effect on the internal and external capabilities that one draws from to support their children (Brophy, 2009). Therefore, poor parental well-being could have an adverse effect on such capabilities resulting in poor mental health in both the single mother and the child.

Myrskylä and Margolis (2013) proposed that parental well-being is an important factor in parity progression that is, having more children. A drop in parental well-being is recorded during the transition to parenthood and situations surrounding the birth of a couple's first child determines the final family size. It has also been found that in the case of single mothers, the female parent who experiences the birthing process alone, makes such decisions based on the state of well-being at first parity.

Parental well-being is also essential in both parents' physical and mental health state, that are considered integral components to their human capital. Hence, the absence of good parental health could result in curtailed employment opportunities as well as children's social development, mental health, and well-being (Strazdins et al., 2011).

Parental well-being is an important concept from both a family and community/society perspective as good parental well-being results in high cognitive and in-cognitive children development levels, as well as maximum performance on the work front, respectively (Landry, 2014).

2.7.6 Well-being of the single mothers

Single mothers have to go through various stressful situations in their lives which indirectly or directly affect their well-being (Chant, 1985). Anton et al. (2015) asserts that South Africa has witnessed an increased rate of mental health issues among the women who are raising their kids single-handedly. Working single mothers were reported to have low levels of life satisfaction, due to demands both at home and at work (Kossek & Ozeki, 1998 cited in Bull & Mittelmark, 2009). Lower levels of subjective economic well-being were reported in single mothers who live alone with their children, than those living with other adults in a study conducted in Japan (Raymo & Zhou, 2012).

2.8 Stress

A widely accepted definition is "the physiological or psychological response to internal or external stressors" (American Psychological Association, n.d.). Differently stated, it is tension due to external or internal pressure that is experienced on either a physical or emotional level (Bjorgvinsdottir & Halldorsdottir, 2014). The stressors and pressure implicated in the previous definitions, are described by Lazarus and Folkman (1984) as a relationship that an individual has with their environment that they cannot deal with. Which, in the current study, is the relationship between a single mother and her environment. Burns (2008) also draws attention to this relationship for stress to occur.

Stress can be good (eustress) or bad (distress) to an individual. Eustress is a positive kind of stress and is viewed as a challenge not a threat. On the other hand, distress is exorbitant stress. It is too much stress that affects an individual negatively and causes medical problems (Brown & Ralph, 1992). Types of stress differ in its characteristics and how it affects the body. Acute stress occurs as a result of immediate response to threat, or a terrifying event and it occurs for

a short period of time (McVicar et al., 2014; Vrshek-Schallhorn et al., 2015). Chronic stress is the result of continuous response to either physical or psychological stimuli (Castillo, 2018).

Stress can affect an individual directly or indirectly. In cases where stress has a direct effect on a person it causes physical changes, for example, body pains (Bruce, 2009) and in cases where it has an indirect effect it affects ones behaviour, for example, one can start smoking (Morrison & Bennett, 2012).

Everyone experience different types of stressful life events in the course of living (Patil et al., 2019). Some of these stressors include getting older, family illness, death, separation or divorce, obtaining a new job, addition to the family, transfer to an undesirable location, employment concerns and a major change in one's financial situation. These events are stressful because they entail significant social readjustments and adaptations (Patti Lucarelli, 2010). Life events may lead to emotional distress which in turn disrupts a person`s daily routine, thus affecting the commitment to be physically active (Engberg, 2010).

In addition, Sheridan and Radmacher (1992) broke down distress and mentioned three types of stressors namely, cataclysmic stressors, personal stressors and background stressors. They define cataclysmic stressors as unpredictable stressful events that happen to crowds simulteniously, for example floods, war, earthquakes etc (Guski, 2001). Personal stressors affect an individual on a personal level and may cause a powerful impact (Sheridan & Radmacher, 1992) whilst background stressors are daily hassles of life which are persistent and irritating in one's life and we cannot run away from it (Wright et al., 2010). In this study, single mothers may be experiencing personal stressors and background stressors.

2.8.1 Reactions to stressors

The flight or fight responses are typical reactions to stressful events (Castillo, 2018) which is a psychological reaction that occurs in the presence of something very frightening. In this situation an individual can either fight or flee the threat (McVicar et al., 2014). At this moment, the body releases adrenaline and cortisol. The release of these hormones can be good or bad to one's body in the long run (Yaribeygi et al., 2017). Corticosteroids help repair and maintain cells, which in turn fights bacteria and viruses which cause diseases. However, if they are continually produced they can cause serious damage to the heart and the blood circulation system (Jones, 2015). To fully understand what our bodies undergo due to stress, Hans Selye introduced a process called the General Adaptation Syndrome that consists of three stages (Selye, 1950).

2.8.2 The General Adaptation Syndrome (GAS)

Selye (1956) wanted people to be aware of the signs caused by stress on the body and be able to manage it before it causes serious damage. He asserts that the human body goes through the stages of an "alarm reaction, resistance, and exhaustion"(Selye, 1950, p. 4667).

Stage 1: Alarm reaction

The alarm reaction consists of early symptoms of stress, namely tachycardia and cortisol and adrenaline excretion that are experienced by the body that are experienced by the body (Selye, 1952). Physiological changes are activated to "prepare the body for different actions" (Steimer, 2002, p. 233) which can either be a fight or flight response (Selye, 1956).

Stage 2: Resistance

The resistance stage is when the body starts to mend itself. In this stage the heart rate returns to normal and a low amount of cortisol is released (Selye, 1956). The body remains alert whilst

repairing itself. Due to an extended exposure to stress, the body fights back by adjusting to stressful situations. However, if the body fails to adjust at this level the stressor cannot be managed and causes harm to the body leading to the malfunction of the whole body (Southgate, 1998).

Stage 3: Exhaustion

The final stage is when the body is exhausted and cannot fight stress anymore due to extended stress (Selye, 1956). This can lead to psychosomatic disorders (Southgate, 1998).

2.8.3 Stress on single mothers

2.8.3.1 Financial stress on single mothers

Financial stress is mostly found in single mothers (Bull & Mittelmark, 2009). This finding is supported by Sumra and Schillaci (2015) who asserts that it is obvious for single mothers to suffer from financial hardship while raising their children by herself, as they have arranged and bear all expenses that are needed for education and continuing to maintain their households. Owing to insufficient financial resources, most single mothers struggle to make a decent living, causing them to develop depression. Similarly Haugen and Lund (2002) uncovered that depression in single mothers can be brought about by financial strain.

According to Parkes et al. (2015), raising a child from the very first day of life is very difficult and adds more responsibility to the lives of parents. It becomes more stressful and difficult for single mothers. It has been identified that single mothers have great need of having a job or any source of income and have no other option but to associate with working life. According to Daryanani et al. (2016) single mothers have to get involved with childcare and maintain their job life simultaneously. This makes the journey of single mothers very difficult.

2.8.3.2 Physical impact of stress on single mothers

Sulkers et al. (2015) stated that excessive working pressures at the workplace as well as at home lead single mothers to experience high physical stress. It has been identified that approximately 59% of single mothers give extra effort, while performing their job role at the workplace and role of single parent at home (Sampson, 2017). Although this extra effort enables single mothers to balance work life and family life, it negatively affects the physical condition of women (Ntoimo & Odimegwu, 2014). It was reported that stress can cause life threatening impacts to the body which can lead to death. Severe stress can change the structure of the brain which leads to disorders such as memory disorders as well as eating disorders (Yaribeygi et al., 2017).

Acceding to El-Behadli et al. (2015), single mothers are likely to suffer from several physical problems such as low bone density which could lead to osteoporosis due to excessive work at an early age. Human bones are getting weaker with aging. It has been proven from various evidence that bones of women are getting weaker at a faster rate than men. Single mothers tend to experience weak bones and suffer from osteoporosis at an older age, due to working excessively hard during early and middle age.

2.8.3.3 Mental stress on single mothers

Single mothers handle work and their homes single-handedly, which sometimes leads to psychological pressure (Ghani et al., 2015; Taylor et al., 2015).

According to Duquaine-Watson (2017) an excessive amount of mental stress is an inevitable result among single mothers who raise their children by themselves and maintain house life and job life simultaneously. Since single mothers have a great need for a job as a source of income and financial security, they sometimes experience high levels of anxiety and feel

exhausted while working. Anton et al. (2015) reported that it is very natural for parents to experience certain bad and good incidents, while raising their children. In this connection, it has been identified that single mothers do not have a significant other to share the good and bad incidents with and get mental support. In addition, El-Behadli et al. (2015) asserts that single mothers tend to go through excessive mental stress while taking major decisions for children.

As per the opinion of Duquaine-Watson (2017), single mothers do not get ample recess time to concentrate on themselves and to take care of themselves. Daryanani et al. (2016) reported that single mothers who raise their children by themselves, should focus on themselves first. Ignoring their own physical as well as mental problems, cause single mothers to be weak both physically and mentally even within a short period. This prevents single mothers to lead their lives competently.

2.8.3.4 Social stress on single mothers

Stress among single mothers can also be caused by social pressures, such as not being able to attend gatherings for couples in their society (Kotwal & Prabhakar, 2009). As indicated by Freeman and Dodson (2014), because of lack of identity, low confidence and financial constraints, most single mothers avert social functions. The authors indicated that single mothers are lonely and were cautious to form bonds with other people. The privatisation of the family structure compounded by the absence of the father has not made it any easier for single mothers. They are left with fewer adults to discuss anything with before making decisions.

2.8.3.5 Parental stress of single mothers

Parental stress is "a condition or feeling experienced when a parent perceives that the demands associated with parenting exceed the personal and social resources available to meet those demands" (Cooper et al., 2009, p. 2). This leads to parents spending limited time focusing on their kids (Carlson & Berger, 2013; Kendig & Bianchi, 2008), hence, the imbalance between demands and capabilities.

Ideally parenting should be an obligation of both parents. Consequently, because of an absent father, single mothers struggle to maintain discipline amongst the youngsters (Hechler et al., 2019). Exorbitant levels of stress are found among single mothers than in married mothers as they take up the double roles of being the primary parent and financial providers to their children (Broussard et al., 2015; Cairney et al., 2003; Chanda & Pujar, 2018; Copeland & Harbaugh, 2005; Sumra & Schillaci, 2015; Wiegner et al., 2015).

2.9 Locus of control

Some authors refers to "locus of control as a personality" (Donat et al., 2016, p. 79) variable that measures personal belief with regards to what control their life's outcome (Darshani, 2014; Khan et al., 2012; Rotter, 1966b; Üzümçeker, 2016; Wang, 2017), and concerning their power over their environment (Bernardi, 2011). Others viewed locus of control as how people react when events occurs in their lives that is, whether they are going to own up to the situation or blame external forces for the event outcomes (Piatek & Pinger, 2012). In regards to locus of control, people are grouped ranging from internal locus of control to external locus of control (Gujjar & Aijaz, 2014).

A person with an internal locus of control has more command over what happens in their life or their life circumstances and they take ownership for the outcome in their lives (Rotter, 1966a). Internals tend to be happier, freer and they experience less stress as they take charge of their lives (Bergvik et al., 2012). They are psychologically well, and are capable of withstanding stress (Conte, 2018; Ziemkiewicz et al., 2011). Internals have more power over their life situations and if anything goes wrong in their lives, they put blame on themselves (Rotter, 1966a). They see a connection between their own conduct and the results thereof. Such persons feel that they have control over events, feel empowered and masterful and they experience lesser work stress (Nafeesa et al., 2019).

Children of mothers who have internal locus of control, are treated with more faith and their mothers are more involved in their lives (Lekfuangfu et al., 2018). This is supported by Bacon and Ashmore (1986), who revealed that parents with internal locus of control participate more in their children's lives.

Individuals with an external locus of control believes that whatever they experience in their lives is due to "luck, chance or powerful others" (Cui, 2013, p. 30). It was found that externals experience more stress, are vulnerable to depression, are sometimes feeling helpless, shame, sadness and are always anxious (Khan et al., 2012). They are prone to be less able to manage stress in any shape or form. This might be because they tend to feel anxious, frustrated and helpless, as well as emotionally unstable, apprehensive, suspicious, tense and concrete in their thinking (Moss, 2017). Diestel et al. (2014) adds that they often experience lesser satisfaction, high absenteeism, and are not very dedicated to their duties. Single mothers with an external locus of control believe that all their encounters and experiences are due to chance, luck, or powerful others (Ghani & Hashim, 2013; Rotter, 1966b).

2.9.1 Locus of control and social learning theory

Rotter developed the locus of control variable from his social learning theory. His theory is derived from the theory of human behaviour. In this theory he defined behaviour as change that occurs between an individual and his or her relationship with the environment, caused by his or her personal reaction to that environment (Rotter, 1954). Social learning theory saw the development of Rotter's Internal-External locus of control scale (Rotter, 1966b).

2.9.2 Rotter's Internal-External Locus of Control scale

The Internal-External Locus of Control scale with 29 forced-choice items and 6 filler items was developed in 1966. To interpret the scale, the total score from the 23 items is summed. A higher score indicates that an individual has external locus of control, whilst a lower score equals to an individual having internal locus of control. This scale is too long for projects that examine other variables, for example the current study. The researcher therefore used a shorter version of Rotter's internal-external scale which is called the Brief Locus of Control Scale, which has six items. Chapter 3 will discuss this scale in detail.

Locus of control is seen as a construct that concentrate more on generalised expectancies, which clarifies the prediction of how reinforcements change behaviour (Lefcourt, 2014). In this current study, locus of control was introduced to see how it moderates the effect of stress on well-being.

2.10 Well-being, stress, and locus of control

Well-being and stress studies have focused on moderators such as resilience, personality, coping, demographics, socio-economic status, seasonality (Wang et al., 2017) and social support (Vermaas, 2010). Moderators change the strength of links between variables (Bliese et al., 2017). Daniels and Guppy (1994) published that internal locus of control subdues the impact of stress on well-being. Other studies also found that locus of control moderates the

relationship between stress and well-being (Xia & Ma, 2020a; Young, 2001). Nevertheless, locus of control was found not to moderate the correlation between the two (2) variables as stated in another study (Weintraub et al., 2015).

2.10.1 Stress and well-being

Many studies indicate an inverse correlation between stress and well-being. Grob (2000) asserted that endless stress negatively affects one's well-being. Single mothers go through various stressful situations in their lives, which directly or indirectly affect their well-being (Chant, 1985). In cases where stress levels in single mothers were higher, their psychological well-being was lower (Chanda & Pujar, 2018). They went on to report that higher stress levels were due to financial and emotional problems and these problems hamper their well-being. High academic-related stress levels was also related with low well-being levels in a study on students (PISA, 2015), and in an Australian survey (APS), 2015). In another study where stress was less, well-being levels were increasing (Wersebe et al., 2018a).

Vazi et al. (2013), who conducted a study on teachers in Eastern Cape in South Africa, confirmed this inverse correlation between stress and psychological well-being. As teachers experienced more stress, their well-being was affected. In other studies a negative association was found between stress and well-being (Strizhitskaya et al., 2018; Zarbova & Karabeliova, 2018). In support of the findings, occupational stress was found to negatively affect psychological well-being (Adegoke, 2014; Akpunne, 2015; Basińska, 2010; Jain et al., 2013; Malek et al., 2009; Poormahmood et al., 2017; Saka et al., 2018; Sonnentag, 2018; Suleman et al., 2018; Wang et al., 2017). Occupational stress was mostly found to take its toll on the psychological well-being on individuals in high demand jobs, where employees experience pressure on a daily basis, for example in police employees (Adegoke, 2014), care givers

(Akpunne, 2015), fire fighters (Basińska, 2010; Malek et al., 2009), and federal road safety personal (Saka et al., 2018). Furthermore, a study on financial stress and well-being among Filipino students also found a negative relationship between these two variables (Bernardo & Resurreccion, 2018).

However, other studies found a positive relationship between stress and well-being. Louw and Viviers (2010) found a positive relationship between these two variables among police officers in South Africa. A significant positive association was also found between occupational stress and psychological well-being among administrative and diplomatic officers in Malaysia. In the study by Yunus and Mahajar (2011), occupational stress was split into six dimensions namely; role overload, role ambiguity, role insufficiency, role responsibility, role boundary, and physical environment.

Moreover, there were other studies that concluded that stress had no significant effect on well-being (Krause, 2019; Madhusudanan & Nalini, 2017). In the study by Krause (2019), well-being was measured as happiness and the sample was made up of educated respondents. Madhusudanan and Nalini's (2017) study was on the psychological well-being of working women in an educational setting.

2.10.2 Locus of control and stress

High stress levels are associated with external locus of control (Seligman & Garber, 1980). These findings were also revealed in a study on teachers in South Africa (Vazi et al., 2013). In another study, high external locus of control was reported in female tutors than male teachers (Khan et al., 2012). Another study among teachers in Zimbabwe and the United States of America (USA), was also in agreement with these results. Teachers in USA who reported to

have high levels of external locus of control, experienced high stress levels than those with an internal locus of control. Nonetheless, this was not the case with Zimbabwean teachers, where external locus of control did not affect job stress. It was concluded that these results were due to poor organisational support in Zimbabwe (Crothers et al., 2019).

An association between stress and external locus of control was reported among divorced people. It was relayed that divorced people whose stress levels were high, were also reported to have high external locus of control levels. It was also found that they tend to avoid managing their problems (Moody, 2015).

On the contrary, low stress levels was found in individuals with internal locus of control (Conte, 2018; Khan et al., 2012; Vazi et al., 2013; Ziemkiewicz et al., 2011). This was also the case on job/occupational stress and locus of control (Chen & Silverthorne, 2008; Daniels & Guppy, 1994; Halpin et al., 1985; Rahim, 1995, 1997; Rashid & Talib, 2013).

2.10.3 Locus of control and well-being

High well-being levels within the context of leadership is accomplished by persons with a solid locus of control expectancy that is both external and internal locus of control (April et al., 2012). A positive association between high internal locus of control and high levels of subjective well-being was also noted in other studies. (Chandiramani, 2014; Dave et al., 2011; Singh & Choudhri, 2014). Contrastingly, it was reported that external locus of control was negatively associated with subjective well-being. A significant inverse relationship between subjective well-being and external locus of control was also reported (Karatas & Tagay, 2012; Kulshrestha & Sen, 2006; Stocks et al., 2012; Ye & Lin, 2015).

Moreover, locus of control and subjective well-being were separately related in the Southern parts of Africa, meaning that there was no association between the two variables in Southern Africa (Stocks et al., 2012).

A positive association between locus of control and general well-being was reported in several studies (Gardner, 1997; Lawal & Idemudia, 2017; Ng et al., 2006; Spector et al., 2001). In another study where the same results were obtained, well-being was measured as happiness among elementary teachers in Iran (Devin et al., 2012). On the contrary, researchers also found a negative relationship between these two variables (Wu et al., 2017). It was suggested that the closer an individual come to higher internal locus of control, the more their general well-being increased.

A positive association between locus of control and psychological well-being was also noted (Cuppari, 2018; Malhotra, 2017; Reza et al., 2015). This means that as one variable increases, the other one also increased. However, some researchers also found an inverse correlation between external locus of control and psychological well-being (Malhotra, 2017; Reza et al., 2015; Weintraub et al., 2015). A negative association was also established between health locus of control and diverse types of well-being (spiritual, physical, emotional, social/family, psychosocial) (Shukla & Rishi, 2018). This shows that as external locus of control increases, psychological well-being decreases.

2.10.4 Locus of control a moderator variable

In correlation analysis, a moderator variable have an impact on the relationship between an independent variable and a dependent variable. It is a third variable that can weeken or

strengthen the correlation between two variables. In this study, locus of control is introduced as a moderator variable between stress and well-being (Baron & Kenny, 1986).

Stress and well-being studies have focused on moderators that change the strength of links between variables (Bliese et al., 2017) such as resilience, personality, coping, demographics, socio-economic status, seasonality (Wang et al., 2017) and social support (Vermaas, 2010). The current researcher wanted to investigate the effect of locus of control on the relationship between stress and well-being. In this regard Xia and Ma (2020) found locus of control to act as a moderator between perceived stress and mental illness (which is a dimension of psychological well-being). Another study on Salvadoran refugees also found the same notion. The study investigated the moderating role of locus of control on the relationship between migration stress and quality of life and life satisfaction (which are components of well-being) (Young, 2001). Krause and Stryker (1984) also reported the same results in their national longitudinal study among middle-aged men. They found that locus of control moderated the effects of job-related stress on psycho-physiological well-being. This notion is also supported by Daniels and Guppy (1994) who revealed that internal locus of control subdues the effect of stress on well-being, meaning that it moderates the relationship between stress and well-being.

However, in another study by Weintraub et al. (2015), the relationship between sub-clinical psychosis (which is caused by stress) and psychological well-being was not affected by locus of control. The latter is, though, a specific consequence of the stress that was investigated.

Many studies focus on locus of control as a moderator variable. Reknes et al. (2019) reported that locus of control impacted positively on exposure to bullying behaviours and psychological strain or stress. It was also established that internal locus of control had a cushioning effect on

the impact of work stress on psychological well-being (Howatt, 2012). Siu et al. (2002) had similar findings when they concluded in their study that work locus of control had an impact on stress-strain and job satisfaction in a study conducted in Greater China. It was also resolved that locus of control has an impact on stress and conflict management (Darshani, 2014). The findings by Howatt (2012) concluded that internal locus of control has an impact on psychological stress and self-acceptance.

In the current study, locus of control was assessed from a moderating point of view. This research aimed to assess whether locus of control had an impact on the relationship between stress and well-being in single mothers.

2.11 Conceptual framework

Based on the theoretical foundation developed from literature review discussion above, hypotheses and a conceptual framework was developed as shown below:

Hypothesis 1

H0: There is no relationship between the stress and well-being of single mothers.

H1: There is a negative relationship between stress and the well-being of single mothers.

Hypothesis 2

H0: Locus of control does not moderate the relationship between stress and the well-being of single mothers.

H2: Locus of control moderates the relationship between stress and the well-being of single mothers.

The conceptual Framework is as summarised below (Figure 2.3).

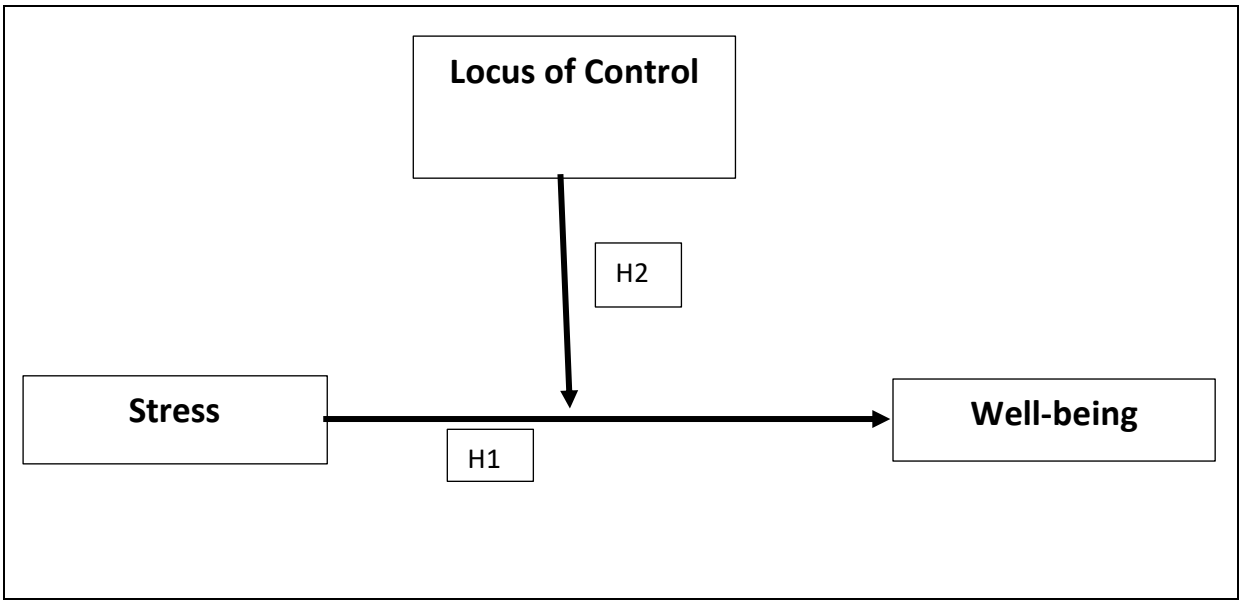


Figure 2.3: Conceptual Framework

2.12 Summary

To conclude, the literature review chapter started with a discussion on single parenting and single motherhood, then continued to discuss the three variables (that is, well-being, stress, and locus of control). After defining the variables, the relationship between variables and how locus of control moderates the relationship between variables was discussed. In closing, a conceptual framework was developed. The methodology used will be discussed in Chapter 3.

CHAPTER 3 : METHODOLOGY

3.1 Introduction

The methodology that was followed in the current study is presented in this chapter. The methodology was adopted to address the research problem, aims, objectives, and questions, and to answer the hypotheses that were outlined in Chapter 1, as stated below.

3.2 Research problem

The research problem was depended on the proof that the rate of single mothers is increasing rapidly in South Africa. Several factors related to being single could increase the stress levels of single mothers, which in its turn affects, among other things, the mothers' parenting. Literature shows that high-stress levels could negatively affect ones' well-being. It was also deducted from the literature that locus of control could have a moderating effect between stress and well-being. The number of studies done to explore the impact of locus of control on the relationship between stress and the well-being of single mothers in South Africa, is insufficient and inadequate. Hence, the researcher sought to explore whether locus of control moderates the relationship between stress and well-being among single mothers. This necessitated the need for research to be conducted.

3.3 Research objectives and hypotheses

The main aim was to investigate the moderation effect of locus of control on stress and the well-being of single mothers in the northern suburbs of Johannesburg.

The main objective was split into the following objectives based on existing literature,

1. To determine the relationship between stress and well-being.
2. To determine whether locus of control acts as a moderator between the stress on the well-being of single mothers.

From these objectives followed the research questions which are:

- Is there a relationship between stress and the well-being of single mothers?
- Does locus of control moderate the relationship between stress and the well-being of single mothers?

The hypothesis for the current study, were as indicated below.

Hypothesis 1

H0: There is no relationship between stress and the well-being of single mothers.

H1: Stress negatively impacts on the well-being of single mothers.

Hypothesis 2

H0: Locus of control does not moderate the relationship between stress and the well-being of single mothers.

H2: Locus of control moderates the relationship between stress and the well-being of single mothers.

3.4 Research paradigm

The researcher adopted a positivistic approach because of the quantitative nature of the current study. The positivist paradigm assumes that there is a reality that needs to be uncovered. This reality can be objectively outlined and observed without the researcher influencing the results

of the study (Terre Blanche et al., 2006). Krauss (2005) therefore described the positivist paradigm as value-free as it allows for objective observation. The ontology of the positivist paradigm indicates that the world around us is a "stable, unchanging external reality" (Terre Blanche et al., 2006, p. 7) that may be outlined using objective data. Its related methodologies assume that reality can be manipulated and or controlled by using objective observations, test questionnaires, statistical procedures and so forth (Terre Blanche et al., 2006). The researcher was therefore interested in seeking objective facts on the possible moderation effect of locus of control on the relationship between stress and the well-being of single mothers.

3.5 Research design

A quantitative research approach was used in the current study. Quantitative research provides quantifiable findings that are generalised to the larger population. The researcher used respondents who resided in the northern suburbs of Johannesburg. The results could be generalised to a broader population of single mothers in South Africa.

The current study followed a cross-sectional survey design as information was gathered from a range of respondents from different age, racial and socio-economic status groups, at a specific time frame.

3.5.1 Sample and sampling

The target population consisted of single mothers who had a child or children aged between 0 and 6 years and were living with their children at the time of the study. The single mother may have lived with other people and may have received support from family and friends. She may also have received help or support from her child or children's fathers at the time of the study. The single mothers were either widowed, separated, divorced, or unmarried. They were

employed and resided in the northern suburbs of Johannesburg. The northern suburbs of Johannesburg were used due to its proximity to the researcher.

Purposive sampling is used to indentify respondents when a researcher needs to study a certain population with certain qualities (Tongco, 2007). In this study purposive sampling was used to identify potential single mother respondents which fits the qualities mentioned above. The researcher also used purposive sampling due to its time and cost effectiveness as this is an academic study with a specific time frame to complete the dissertation and limited budget. However, after using purposive sampling one can not generalize the research findings. The researcher put up posters at community halls, clinics, churches, and supermarkets around the Northern suburbs of Johannesburg with the necessary permission from the relevant authorities. According to Wikipedia, Johannesburg North is part of the City of Johannesburg Metropolitan Municipality in Region C (*Johannesburg North*, n.d.). The Northern surbubs reflect diverse cultures and ethnic groups and is characterized by mostly middle income earners. Social media, including Facebook and Twitter was also used to recruit single mothers who were keen on partaking in the study. A poster inviting single mothers to participate in the study was put up on these platforms and updated every day for the duration of data collection so that many single mothers would see the post. Facebook group leaders for all groups in the northern suburbs of Johannesburg were consulted beforehand. In cases where they approved the post, the group leaders posted the poster on the suburb's Facebook wall page. For Twitter, the researcher put up a post on their wall open to everyone to see and share with single mothers residing in the northern suburbs of Johannesburg. The final sample consisted of 187 respondents aged from 18 to 38 years. The single mothers were from a variety of race groups in South Africa.

3.5.2 Data collection

The respondents either completed an online questionnaire or a pen to paper questionnaire. The online questionnaire was administered through Qualtrics. A link was put on the northern suburbs' Facebook and Twitter groups that directed respondents to the survey, where they were asked screening questions to determine their suitability to partake in the study.

To accommodate respondents who did not have access to the internet, all pen to paper questionnaires were handed out physically by the researcher. The posters that were put up and the questionnaires that were handed out had screening questions to determine the suitability of respondents. Those who saw the posters phoned the researcher and set up appointments for collection of the questionnaires. The researcher met with the eligible respondents at the places where the posters were posted to hand them the questionnaires. These places were at local community halls, local clinics, local supermarkets, and local churches.

The researcher introduced herself on the cover letter that preceded the questionnaire. The cover letter also included the research aims, consent form and the instructions. The respondents completed the survey in their own time and after submitting the survey the researcher expressed gratitude towards their participation in the study by thanking them.

3.5.3 Research instrument

Data was collected through a questionnaire consisting of a biographical section and three measures namely the Perceived Stress Scale, the Brief Locus of Control Scale, and the WHO-5 Well-being Index Scale. It took approximately 10 minutes to complete the online questionnaire and 12 minutes to complete the pencil to paper questionnaire.

The biographical information of single mothers was partially used to verify that the respondents were eligible to participate in the study *(See Appendix 1).* This included whether the respondent was a single mother, where they reside, the number of children under the age of 6 years, whether they stayed with children under the age of 6 years, whether they stayed with other people besides their children, where their children were when they are at work, as well as their race, age and socio-economic status, that is, their highest attained level of education, work status and income group. The screening questions determined whether they were single mothers, had children aged 0 to 6 years and were living with them, whether they stayed in the northern suburbs of Johannesburg and whether they were working at the time of the study. Those who were not eligible to participate (n= 18) in the online questionnaire, were thanked for their eagerness to partake and the survey would end. The questionnaires of those who were not eligible to participate but completed a pen to paper questionnaire (n= 9) were excluded from the analysis.

3.5.3.1 Perceived Stress Scale

A 10-item *Perceived Stress Scale* was utilised to evaluate the respondents' stress levels. The questionnaire is widely used for research purposes (Cohen & Williamson, 1988b). According to Teresa et al. (2007), the scale has been extensively tested, hence, it was suitable to administer to participants from a diverse country like South Africa. The scale had an alpha coefficient of 0.82 and a test-retest reliability of 0.77 (Teresa et al., 2007).

The items were rated on a 5-point Likert scale, resulting in a top score of 40 that represented high-stress levels (Anshel & Brinthaupt, 2014). The Likert scale ranged from 0 (never) to 4 (very often). High stress levels are represented by items 1,2,3,6,9, and 10 and low stress levels are represented by items 4,5,7, and 8.

3.5.3.2 Brief Locus of Control Scale

To assess the locus of control of the respondents, a 6-item *Brief Locus of Control Scale* was used. This scale was designed by Lumpkin (1985), a shorter version devised from Rotter`s original 29-item scale (Rotter, 1966b). The 29-item internal-external locus of control scale scored high in test-retest reliability (Moosa et al., 1997 as cited by Wijk, 2013). The *Brief Locus of Control Scale* is mainly used for projects where locus of control is being measured with other variables and is not the central focus. In this study, locus of control was not the central focus. The researchers main focus was on stress and well-being of single mothers. The *Brief locus of control scale* can also be used in cases where the length of the questionnaire and time required may be of concern (Lumpkin, 1985). A Cronbach alpha for internal consistency of 0.68 was recorded for the *Brief Locus of Control Scale* (Lumpkin, 1985) compared to 0.79 that was recorded from the original 29-item internal-external locus of control scale (Rotter, 1966b).

The Likert scale ranges from 1 (strongly disagree) to 5 (strongly agree). Internal locus of control is represented by items 1, 2, and 3 and external locus of control is represented by items 4, 5, and 6. The highest possible score is 30. High scores indicate high internal locus of control and low scores represent high external locus of control.

3.5.3.3 WHO-5 Well-being Index Scale

A 5-item Likert scale called the *WHO-5 Well-being Index Scale* was used to determine the well-being of the respondents during the past fourteen days. No explanation as to why respondents should consider the past fourteen days was provided. An appropriate level of statistical reliability and validity was found for the scale, with a Cronbach's alpha of 0.87 (Saipanish et al., 2009). The scale has been used all over the world, including in South Africa, because it is easy to translate, hence, had fewer translation problems, uses straightforward

language, and does not break cultural norms (Topp et al., 2015). In most cases, the scale is used as a screening tool for depression. However Topp and colleagues, (2015) mentioned that the scale can also be used in research studies to assess general well-being. The scale was also used in a study on student`s general well-being in Kwazulu-Natal (Pilane, 2011). The WHO-5 Well-being Index Scale is informed by the Rasch`s Item Response Theory which states that the scale`s 5 items adds up to a one-dimension scale where each item measures a different level of well-being (Topp et al., 2015).

The items range from 0 (at no time) to 5 (all of the time). The scores add up to a total of 25 which is then multiplied by 4 leading to an aggregate total fluctuating from 0 to 100. Scores close to 100 indicate high levels of well-being, while scores close to zero indicates low levels of well-being.

3.6 Data analysis

After data collection, data was downloaded from Qualtrics to the SPSS statistical software .25 where it was analysed. Data from the pen to paper questionnaire was captured on MS Excel and then exported to SPSS where it was merged with the Qualtrics data file. A total of 187 questionnaires were received. Ineligible respondents who attempted to complete the online questionnaires were not allowed to continue to the next question. Online respondents also had to complete each question to be able to continue to the next question. Therefore, only the pen to pencil questionnaires were checked for eligibility to participate in the study and for missing values. All ineligible and incomplete cases were eliminated before data analysis, resulting in a final sample of 160 responses that were analysed.

Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) can be used to assess construct validity. CFA is mainly used when one is confirming or rejecting measurement theory while EFA is used to assess whether items or statements are measuring the same constructs (Orcan, 2018). In this research, EFA was more relevant since the objective of the study was not to confirm or reject measurement theory but to evaluate whether the items in each construct were valid in assessing that construct. EFA was used to assess the convergent validity of the scale within a South African setting, while the scale's reliability was investigated using Cronbach Alpha.The use of Cronbach Alpha to test for consistency of results when using a scale in a cross-sectional study, is acceptable. Reliability is tested for only when a test-retest was conducted (Taber, 2018). Summaries of the data was presented through the use of descriptive statistics such as frequencies, mean and the standard deviation. Hypothesis 1 and 2 were investigated through the use of a Pearson Correlation and Multiple Regression Analysis.

3.7 Ethical considerations

Ethical clearance was awarded by the College of Human Sciences Research Ethics Review Committee of the University of South Africa. To strengthen the ethics of the study, the researcher followed the general principles as contained in the Ethical Principles of Psychologists and Code of Conduct compiled by the American Psychological Association (American Psychological Association, 2017).

3.7.1 General principles

Principle A: *Beneficence and non-maleficence*

The study was of a low-risk nature. The questionnaire had a contact number for a local support group to help in the event that the study evoked discomfort or psychological issues.

Respondents were informed beforehand of the duration of the survey and the number of questions that were in the questionnaire. It was also clearly indicated that there were no immediate benefits for participating in the survey. However, the study was going to assist communities in better understanding the challenges faced by single mothers.

Respondents were given an option to opt-out whenever they felt that they did not want to continue, and the data of those who opt out before the end of the survey was not analysed. However, they were informed that once they have submitted their data, they were not able to withdraw.

Principle B: *Fidelity and responsibility*

To establish trust between the researcher and participants, the researcher introduced themselves in the cover letter. The cover letter also explained what the study intended to achieve. Likewise, the researcher's contact details were supplied in case respondents had questions or needed clarification. The respondents were notified beforehand that the researcher, the study supervisor, and a statistician were the only people with permission to view the data.

A signed informed consent was obtained from each pen to paper respondent beforehand. Those who did not submit a signed consent form, had their questionnaires excluded from the analysis. For online respondents, those who did not give online consent, could not continue to the questions and the questionnaire closed automatically.

Principle C: *Integrity*

The study was conducted with integrity and respondents were not lied to in any way. Data was not misinterpreted and was used as is. The process of data analysis was aimed at accurately presenting the responses from the respondents.

Principle D*: Justice*

The researcher assured fairness by administering the same questionnaire to online respondents and pen to paper respondents. All interested and qualifying respondents were given a chance to participate in the study. An online link was provided to those with access to the internet. The researcher handed out questionnaires to those who did not have access to the internet. Those who declined to take part or did not complete the study were treated with respect and without any prejudice.

Furthermore, referral details for those who needed counselling were provided on the questionnaire. The researcher was also aware that single fathers were left out in her study, hence it was a limitation for her study and would recommend future studies to also take note of single fathers.

Principle E: *Respect for People`s Rights and Dignity*

The researcher assured respondents that their data was anonymous and no identifiable information was collected from them, hence, their data was kept confidential. The respondents were treated with respect and they were thanked for their participation.

3.8 Summary

This chapter described and outlined the research techniques and processes used. The study used a quantitative technique, and it adopted a positivist paradigm. Purposive sampling was used to

identify and recruit respondents. Posters were put up at community halls, clinics, churches and supermarkets around the northern suburbs of Johannesburg, while social media platforms including Facebook and Twitter were used to recruit single mothers. Data was collected using an online questionnaire and a pen to paper questionnaire. The *Perceived Stress Scale* for stress, *Brief Locus of Control Scale* for locus of control and the *WHO-5 Well-being Index Scale* for well-being were used as research instruments. The research instruments were described in-depth and their suitability for the study was also discussed. The procedure that was taken to administer the questionnaire was outlined.

A sample of 187 single mothers completed the questionnaire. After data cleaning, 160 questionnaires were analysed using the SPSS statistical software .25. The procedure that was taken to administer the questionnaire was outlined and how data was analysed was discussed. Descriptive statistics were used to summarise the data. Exploratory factor analysis was used to analyse the convergent validity and Cronbach Alpha was used to analyse the reliability of the scales. Hypothesis 1 and 2 were investigated through the use of a Pearson Correlation and Multiple Regression Analysis. Finally, the ethical considerations taken into account, namely beneficence and nonmaleficence, fidelity and responsibility, integrity, justice, and respect for people`s rights and dignity, were discussed.

The research findings are presented in the next chapter.

CHAPTER 4 : RESULTS

4.1 Introduction

This chapter introduces the findings from the self-administered questionnaire. The objective of the study was to establish the moderating effect of locus of control on the relationship between stress and the well-being of single mothers. The discussion of the results is presented in Chapter 5.

4.2 Demographics

A total of 187 responses were collected from single mothers eligible to participate in the study, with 105 responses collected through Qualtrics and the other 82 through pen to paper questionnaires. A total of 160 responses were analysed after excluding 27 incomplete responses from both Qualtrics (18) and pen to paper questionnaires (9).

Results in Figure 4.1 show that the highest proportion of respondents were from the Northern Johannesburg suburbs of Ferndale (n=48; 30%) followed by Malanshof (n=22; 14%).

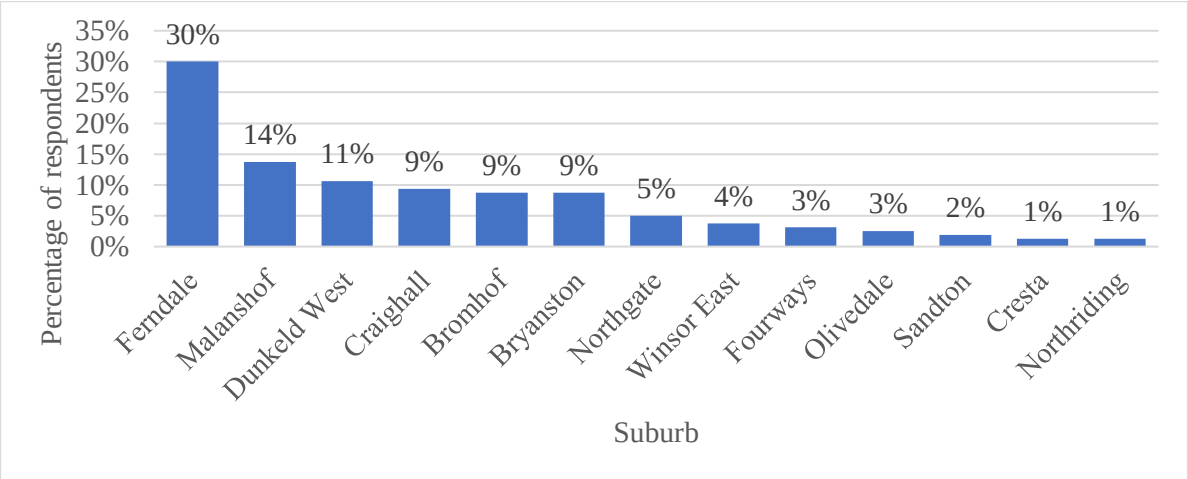


Figure 4.1: Suburb

The results presented in Table 4.1 indicate that the sample was mainly Black (n=102; 63.75%) followed by Whites (n=29; 18.13%). More than two thirds of the sample earned R10 000 or

less per month (n=108; 67.5%). The highest level of education was matric (n=65; 40.63%) and slightly above half of the sample (n=83; 51.88%) had a diploma or higher as their highest attained level of education.

Table 4.1: Race, Income and highest level of education

Variable	Option	Frequency	Percent
Race	Black	102	63.75%
	White	29	18.13%
	Coloured	19	11.88%
	Indian	8	5.00%
	Other	2	1.25%
Highest level of education	No education	12	7.50%
	Matric	65	40.63%
	Diploma	48	30.00%
	Degree	17	10.63%
	Master`s degree	14	8.75%
	Doctoral degree	4	2.50%
Monthly income	Up to R5000	67	41.88%
	R5001- R10 000	41	25.63%
	R 10 001 – R15 000	24	15.00%
	R15 001 – R20 000	17	10.63%,
	>R20 000	11	6.88%

The average age for the respondents in the sample was 28.78 years old with a standard deviation of 4.27 years. The age range was 18 - 38 years (Table 4.2).

Table 4.2: Respondent age

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Q9 What is your age (in years)?	160	18	38	28.78	4.266

Most of the respondents were working full-time (n=115; 71.88%), followed by those working part-time (n=32; 20.00%) while the remainder (n=13; 8.13%) were self-employed (Figure 4.2).

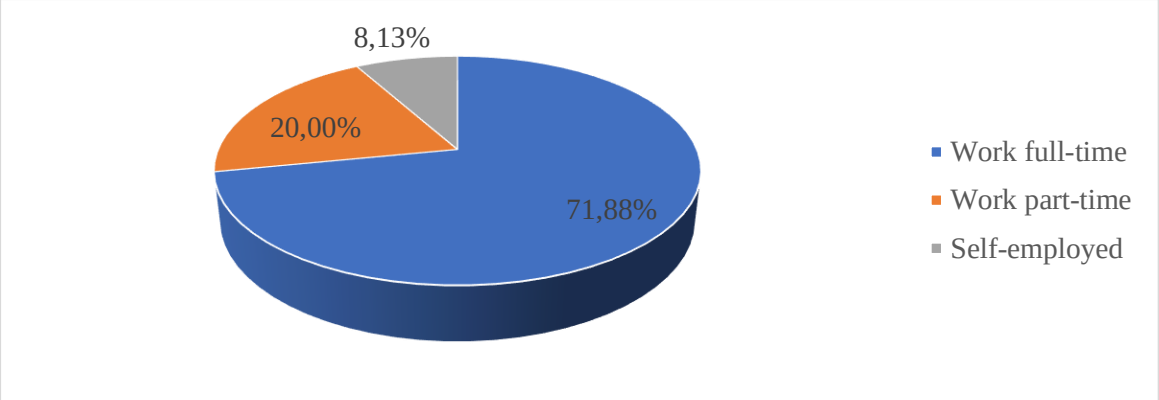


Figure 4.2: Employment status

The respondents indicated how many of their children under the age of 6 years stayed with them. More than half of the respondents (n=109; 68.13%) had one child staying with them, while almost a third had two children staying with them (n=43; 26.88%). A small proportion of the respondents (n=8; 5.00%) had three children staying with them. No respondent had more than three children staying with her.

The respondents also indicated whether they had received assistance from the fathers of their children, as well as the type of support that was received. Most of the respondents (n= 134; 83.75%) did not get any assistance from the fathers. Those who received support from the fathers of the children (n=26; 16.25%) mostly received maintenance support (n=15; 57.69%) and support with day-care fees (n=10; 38.46%). The other (n=1, 3.85%) received assistance with transport cost as illustrated in Figure 4.3.

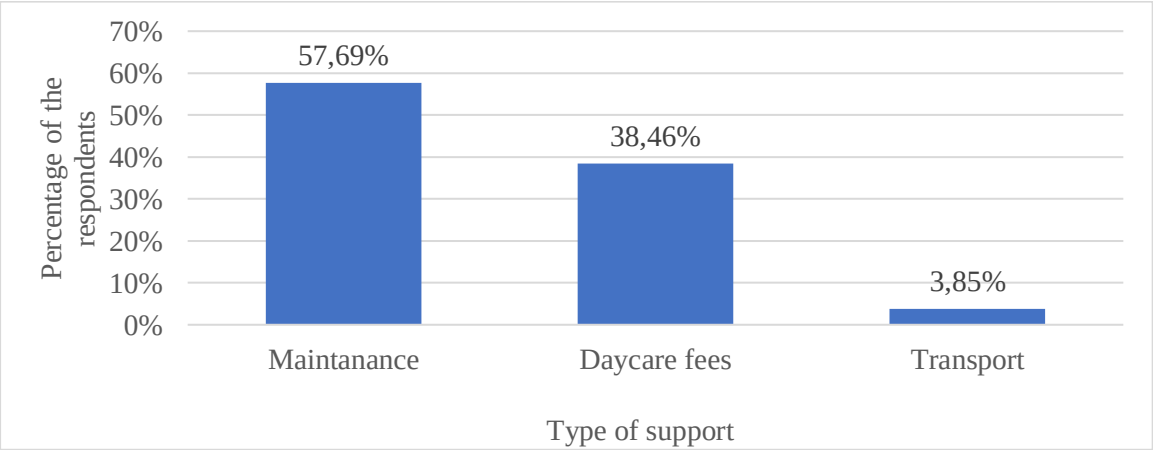


Figure 4.3:Type of support received from the fathers of the children

Figure 4.4 summarises the results on where the children were left when the respondents were at work. The respondents mainly left their children with relatives (n=61, 38.13%) or at day-care centres (n= 56, 35.00%).

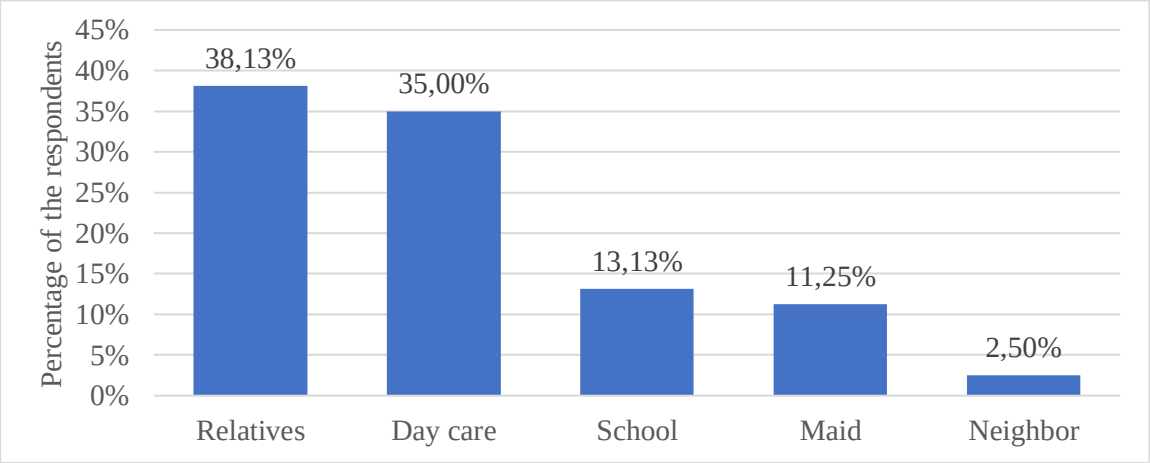


Figure 4.4: Where children under the age of 6 will be when the mother is at work

4.3 Test for homogeneity of the sample

A Chi-square test for associatsion was conducted for categorical variables to compare the oneline sample against the pen to papser sample on sample demographics. A T-test was conducted to compare the age of the respondents from the two samples. The results presented below show that there were no significant differences on the two samples as the tests had p-values greater than 0.05 across all variables. Thus, it can be noted that the two samples were homogeneous.

Table 4.3 Test for homogeneity of the sample

		Sample			P-value
		Online (n=87)	Pen to paper (n=73)	Total (n=160)	
Q7 Where are your children under the age of 6 years when you are at work? - Selected Choice	At a day care centre	32.2%	38.4%	35.0%	.944
	With a maid	11.5%	11.0%	11.3%	
	With relatives	40.2%	35.6%	38.1%	
	At school	13.8%	12.3%	13.1%	
	Other, specify	2.3%	2.7%	2.5%	
Q8 What is your working status? - Selected Choice	Work full-time	72.4%	71.2%	71.9%	.770
	Work part-time	18.4%	21.9%	20.0%	
	Other	9.2%	6.8%	8.1%	
Q10 Please indicate your race. - Selected Choice	Black	66.7%	60.3%	63.8%	.544
	Coloured	11.5%	12.3%	11.9%	
	Indian	2.3%	8.2%	5.0%	
	White	18.4%	17.8%	18.1%	
	Other, specify	1.1%	1.4%	1.3%	
Q11 What is your highest attained level of education? - Selected Choice	No education	9.2%	5.5%	7.5%	.094
	Matric	43.7%	37.0%	40.6%	
	Diploma	24.1%	37.0%	30.0%	
	Degree	12.6%	8.2%	10.6%	
	Master`s degree	5.7%	12.3%	8.8%	
	Doctoral degree	4.6%		2.5%	
Q12 In which of the following income groups does your monthly income fall into?	Up to R5000	41.4%	42.5%	41.9%	.754
	R5001- R10 000	27.6%	23.3%	25.6%	
	R 10 001 – R15 000	16.1%	13.7%	15.0%	
	R15 001 – R20 000	10.3%	11.0%	10.6%	
	>R20 000	4.6%	9.6%	6.9%	
Mean Age		29.23	28.25	28.78	.147

4.4 Descriptive statistics for the scales used

For a general overview of the responses to the individual items in each scale, the descriptive statistics were computed for each of the items in the three scales.

4.4.1 Perceived Stress Scale Items

Table 4.4 below indicates higher mean scores for statements reflecting high stress levels (items 1,2,3,6, 9 and 10). The mean scores were between 2.29 and 2.48, meaning that the respondents

were often experiencing stress since the mean scores were between *sometimes* and fairly often. For statements that indicated low stress levels (items 4,5,7 and 8), the mean scores were low and were between 1.92 and 2.08. This indicated that the respondents only sometimes experience low stress levels. This means that lower mean scores for low stress items equal to high stress levels, hence single mothers were experiencing high stress levels.

Table 4.4: Perceived Stress Scale Items

Questions	Never (0)	Almost never (1)	Sometimes (2)	Fairly often (3)	Very often (4)	Mean	Std. Deviation
1. How often have you been upset because of something that happened unexpectedly?	8 (5%)	19 (11.88%)	70 (43.75%)	45 (28.13%)	18 (11.25%)	2.29	.987
2. How often have you felt that you were unable to control the important things in your life?	2 (1.25%)	20 (12.5%)	62 (38.75%)	51 (31.88%)	25 (15.63%)	2.48	.945
3. How often have you felt nervous and "stressed"?	2 (1.25%)	26 (16.25%)	58 (36.25%)	54 (33.75%)	20 (12.5%)	2.40	.946
4. How often have you felt confident about your ability to handle your personal problems?	**18 (11.25)**	**8 (5%)**	**78 (48.75%)**	**48 (30%)**	**8 (5%)**	**2.08**	**.995**
5. How often have you felt that things were going your way?	**14 (8.75%)**	**20 (12.5%)**	**74 (46.25%)**	**43 (26.88%)**	**9 (5.63%)**	**1.92**	**.984**
6. How often have you found that you could not cope with all the things that you had to do?	2 (1.25%)	23 (14.38%)	66 (41.25%)	50 (31.25%)	19 (11.88%)	2.38	.917
7. How often have you been able to control irritations in your life?	**18 (11.25)**	**10 (6.25%)**	**82 (51.25%)**	**44 (27.5%)**	**6 (3.75%)**	**2.06**	**.969**
8. How often have you felt that you were on top of things?	**20 (12.5%)**	**15 (9.38%)**	**68 (42.5%)**	**48 (30%)**	**9 (5.63%)**	**2.07**	**1.059**
9. How often have you been angered because of things that were outside of your control?	3 (1.88%)	17 (10.63%)	69 (43.13%)	51 (31.88%)	20 (12.5%)	2.43	.908
10. How often have you felt difficulties were piling up so high that you could not overcome them?	2 (1.25%)	21 (13.13%)	65 (40.63%)	43 (26.88%)	29 (18.13%)	2.48	.977

4.4.2 Locus of Control Scale Items

Statements indicating internal locus of control (items 1, 2 and 3) had high mean scores which ranged between 3.13 and 3.33. The respondents indicated that they would rather agree with high internal locus of control measuring statements than external locus of control. Statements

indicating external locus of control (items 4, 5 and 6) had mean scores between 2.63 and 2.66. This means that the respondents were neither agreeing nor disagreeing with the statements.

Table 4.5: Locus of Control Scale Items

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	Mean	Std. Deviation
1. When I make plans, I am almost certain that I can make them work.	9 (5.63%)	26 (16.25%)	41 (25.63%)	71 (44.38%)	13 (8.13%)	3.33	1.026
2. Getting people to do the right things depends upon ability; luck has nothing to do with it.	10 (6.25%)	26 (16.25%)	48 (30%)	57 (35.63%)	19 (11.88%)	3.31	1.076
3 What happens to me is my own doing.	10 (6.25%)	35 (21.88%)	53 (33.13%)	48 (30%)	14 (8.75%)	3.13	1.053
4. Many of the unhappy things in people's lives are partly due to bad luck.	**11 (6.88%)**	**74 (46.25%)**	**47 (29.38%)**	**20 (12.5%)**	**8 (5%)**	**2.63**	**.963**
5. Getting a good job depends mainly on being in the right place at the right time.	**14 (8.75%)**	**66 (41.25%)**	**54 (33.75%)**	**17 (10.63%)**	**9 (5.63%)**	**2.63**	**.982**
6. Many times I feel that I have little influence over the things that happen to me.	**12 (7.5%)**	**62 (38.75%)**	**61 (38.13%)**	**19 (11.88%)**	**6 (3.75%)**	**2.66**	**.918**

4.4.3 Well-being Scale Items

Table 4.6 shows that mean scores were between 2.28 and 2.71 indicating that majority of the respondents were experiencing high well-being levels between less than half of the time and more than half of the time. This indicates that the respondents experienced high well-being approximately half of the time.

Table 4.6: Well-being Scale Items

	At no time (0)	Some of the time (1)	Less than half of the time (2)	More than half of the time (3)	Most of the time (4)	All the time (5)	Mean	Std. Deviation
1 I have felt cheerful and in good spirits.	18 (5.63%)	38 (16.25%)	24 (25.63%)	30 (44.38%)	37 (8.13%)	13 (6.25%)	2.43	1.536
2 I have felt calm and relaxed.	12 (16.25%)	38 (30%)	31 (35.63%)	36 (11.88%)	35 (6.25%)	8 (21.88%)	2.43	1.385
3 I have felt active and vigorous.	9 (33.13%)	46 (30%)	32 (8.75%)	39 (6.88%)	26 (46.25%)	8 (29.38%)	2.32	1.329
4 I woke up feeling fresh and rested.	14 (12.5%)	47 (5%)	26 (8.75%)	34 (41.25%)	32 (33.75%)	7 (10.63%)	2.28	1.410
5 My daily life has been filled with things that interest me.	10 (5.63%)	38 (7.5%)	21 (38.75%)	30 (38.13%)	41 (11.88%)	20 (3.75%)	2.71	1.527

4.5 The validity of the scale

Exploratory factor analysis (EFA) was conducted to assess the validity of the scale. Principal axis factoring using promax rotation was used to extract the number of factors from the 21 items, because factors were expected to be correlated (Field, 2013). The results are presented in Tables 4.7 to 4.9 as well as in Figure 4.7.

Beforehand, it had to be determined if the sample was adequate for EFA. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity, showing whether the sample was adequate, as indicated in Table 4.7.

Table 4.7: KMO and Bartlett`s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.867**
Bartlett's Test of Sphericity	Approx. Chi-Square	2485.727
	df	210
	Sig.	.000

The KMO value of 0.867 was within the acceptable range (> 0.5) meaning that the sample was adequate to perform EFA (Field, 2013). The Bartlett's Test of Sphericity was significant (p-

value = 0.000 < 0.05) (Hair et al., 2006). This shows that the correlation matrix was not an identity matrix, implying that the items had strong enough correlations to perform factor analysis (Field, 2013; Hair et al., 2014).

The EFA results are presented in Tables 4.8 and 4.9 as well as in Figure 4.5. Table 4.8 shows the amount of variance in the initial individual items that were explained by the extracted factors.

Table 4.8: Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.341	34.955	34.955	6.959	33.139	33.139	6.726
2	4.707	22.415	57.370	4.352	20.723	53.862	4.153
3	1.988	9.466	66.836	1.615	7.692	61.554	4.193
4	.979	4.664	71.500				
5	.849	4.042	75.541				
6	.724	3.448	78.990				
7	.594	2.829	81.819				
8	.492	2.341	84.160				
9	.443	2.111	86.271				
10	.416	1.981	88.252				
11	.371	1.765	90.017				
12	.351	1.669	91.686				
13	.300	1.426	93.112				
14	.264	1.256	94.368				
15	.232	1.104	95.472				
16	.212	1.011	96.483				
17	.182	.868	97.352				
18	.172	.820	98.172				
19	.152	.723	98.895				
20	.119	.567	99.462				
21	.113	.538	100.000				
Extraction Method: Principal Axis Factoring.							
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.							

The EFA resulted in three factors as shown in Table 4.8 (eigenvalues > 1) (Ellis, 2017). The three factors explained 66.84% of variation in the individual items. The scree plot was used together with the eigenvalue rule that the measure should be greater than one to show that three factors were indeed retained (see Figure 4.5 below).

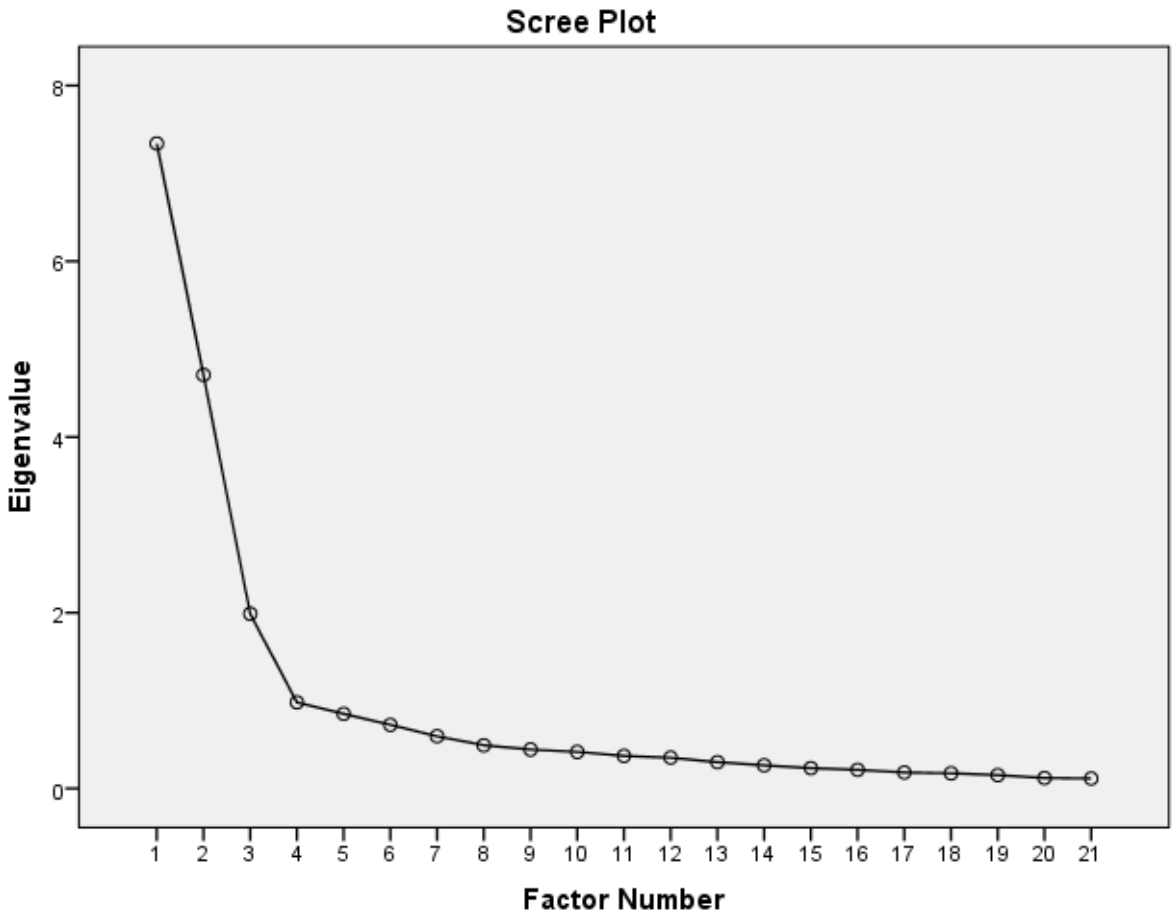


Figure 4.5: Scree plot

Figure 4.5 suggested that three factors were extracted. This is because the line graph flattens after three factors. These results are in harmony with what was seen in Table 4.8.

The pattern matrix which shows the composition of the three factors that were extracted is summarised in Table 4.9.

Table 4.9: Pattern Matrix

Construct	Item	Factor		
		1	2	3
Perceived Stress	Q13_7_R* In the last month, how often have you been able to control irritations in your life?	.914	-.077	.163
	Q13_8_R *In the last month, how often have you felt that you were on top of things?	.877	-.145	.108
	Q13_5_R *In the last month, how often have you felt that things were going your way?	.866	-.097	.059
	Q13_4_R *In the last month, how often have you felt confident about your ability to handle your personal problems?	.840	.058	-.033
	Q13_1 In the last month, how often have you been upset because of something that happened unexpectedly?	.734	.057	-.010
	Q13_3 In the last month, how often have you felt nervous and "stressed"?	.724	.139	-.061
	Q13_10 In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	.724	-.072	.005
	Q13_2 In the last month, how often have you felt that you were unable to control the important things in your life?	.710	.141	-.097
	Q13_6 In the last month, how often have you found that you could not cope with all the things that you had to do?	.652	.029	-.186
	Q13_9 In the last month, how often have you been angered because of things that were outside of your control?	.649	.014	-.056
Locus of Control	Q14_4_R *Many of the unhappy things in people's lives are partly due to bad luck.	-.094	.886	
	Q14_6_R *Many times I feel that I have little influence over the things that happen to me.	-.028	.876	
	Q14_5_R *Getting a good job depends mainly on being in the right place at the right time.	-.015	.847	
	Q14_2 Getting people to do the right things depends upon ability; luck has nothing to do with it.	-.012	.764	
	Q14_1 When I make plans, I am almost certain that I can make them work.	.005	.699	
	Q14_3 What happens to me is my own doing.	.178	.587	
Well-being	Q15_2 I have felt calm and relaxed.	-.094		.796
	Q15_5 My daily life has been filled with things that interest me.	.156		.759
	Q15_1 I have felt cheerful and in good spirits.	-.016		.755

	Q15_3 I have felt active and vigorous.	.004		.748
	Q15_4 I woke up feeling fresh and rested.	-.255		.557
	Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization.			
	a. Rotation converged in 5 iterations.			
* indicates reversed items				

An item with a factor loading of greater than or equal to 0.5 are considered to be measuring a construct, while factor loadings less than 0.5 are considered to be not strongly related to the construct (Huang & Weng, 2017; Ponnam et al., 2014; Viljoen et al., 2017) . Thus, a cut-off of 0.5 was used for this study. The outcomes shown in the pattern matrix (Table 4.9) shows that the Perceived Stress construct retained all 10 items that were in the originally hypothesised factor. The retained individual items had acceptable factor loadings (factor loadings > 0.5) (Huang & Weng, 2017; Ponnam et al., 2014; Viljoen et al., 2017)

The locus of control construct had no items removed during factor analysis. All the items had a factor loading higher than the minimum requirement of 0.5 (Huang & Weng, 2017; Ponnam et al., 2014; Viljoen et al., 2017).

Like the perceived stress construct and the locus of control construct, the well-being construct retained all the originally hypothesised five items.

Since all the items converged into their respective constructs with none with a factor loading below the cut-off of 0.5, this confirmed convergent validity (Wang & Li, 2017). The fact that each construct had one factor only, indicates that the constructs were unidimensional (Farooq, 2016).

4.6 Reliability of the scale

The scales reliability was assessed using Cronbach's Alpha and the results per construct are presented in Table 4.10. The rule of thumb of at least 0.7 was used (Field, 2013).

Table 4.10: Internal Consistency

Construct	N of Items	Cronbach's Alpha	Reliability Level
Perceived Stress	10	.937	Excellent
Locus of Control	6	.904	Excellent
Well-being	5	.859	Very good

Table 4.10 shows that there was excellent internal consistency for the Perceived Stress Scale (10 items, $\alpha = 0.937$) and the Locus of Control Scale (6 items, $\alpha = 0.904$) as the Cronbach's Alpha values were greater than 0.9 (Cronbach & Shavelson, 2004). The Well-being Scale (5 items, $\alpha = 0.859$) had a very good internal consistency since the Cronbach's Alpha value was greater than 0.8 (Ursachi et al., 2015).

All three scales were reliable based on internal consistency (Cronbach's Alpha values > 0.7), which means that all three constructs had a reliable scale (van Griethuijsen et al., 2015). This means that a composite scale could be computed for each construct.

4.7 Scoring

4.7.1 Perceived Stress Scale

The scoring for the Perceived Stress Scale was done through summing the scores for the 10 items in the scale for each respondent (Cohen & Williamson, 1988). This was after reversing the scale for items Q13_4, Q13_5, Q13_7, and Q13_8 (that is 4=0, 3=1, 2=2, 1=3, and 0=4). The reversing of the scale was done because the items were positively worded unlike the rest

of the preserved scale items. The lowest rating (never) was allocated a 0, while the highest score (very often) was allocated a 4. This means that the perceived stress scale could take values ranging from 0 to 40, with 0 being the lowest stress level and 40 being the highest (Anshel & Brinthaupt, 2014). A score of 0 indicating a score for a respondent with no stress at all, while a score of 40 indicated a respondent with the worst imaginable stress level.

4.7.2 Locus of Control Scale

The scores for the 6 items in the Locus of Control Scale were summed per each respondent to calculate the composite scale for the construct (Lumpkin, 1985). This was after reversing the scale for items Q14_4, Q14_5, and Q14_6. The scale for the items was reversed because they were negatively worded in contrast to the other locus of control items which were positively worded.

This means that the locus of control scale could take values ranging from 5 to 30, with 5 indicating an individual with the strongest external locus of control and 30 being the highest score for a respondent with the strongest internal locus of control.

4.7.3 Well-being Scale

The Well-being Scale was scored using the WHO-5 computation. That is summing the values allocated to each of the 5 items (rated from 0 to 5) (Saipanish et al., 2009). The total was converted to a scale out of 25 and then multiplied by 4. This means that the well-being scale could take values ranging from 0 to 100. A score of zero was the worst possible well-being while a score of 100 indicated the unsurpassed conceivable well-being.

4.8 Correlation analysis

4.8.1. Assumptions for correlation analysis

To determine the type of correlation analysis to be applied, histograms of the three constructs were plotted to explore whether the variables were either normally distributed or not. The histograms are shown in Figure 4.6. It can be noted from the figure that most of the bars for the three histograms were lying under the normal curve. Variables were normally distributed or at least approached the normal distribution. This resulted in the Pearson Correlation being chosen over the Spearman's correlation (Field, 2013).

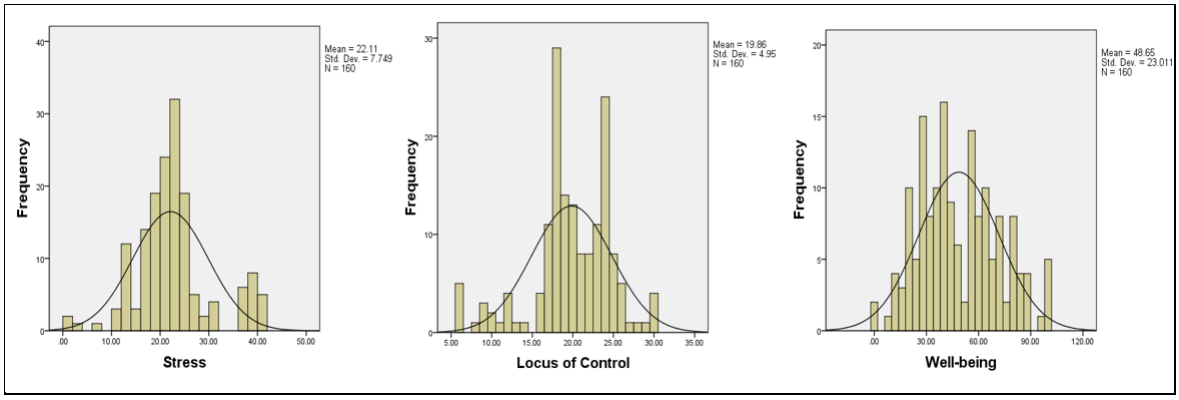


Figure 4.6: Histogram of variables

4.8.2 Descriptive statistics and Pearson's correlation

The descriptive statistics and Pearson's correlations among the three constructs are presented in Table 4.11. The correlation coefficient values were assessed at a 5% significance level.

Table 4.11: Descriptive statistics & Pearson Correlations

DESCRIPTIVE STATISTICS & PEARSON CORRELATIONS							
	M	**SD**	**Skewness**	**Kurtosis**	**Stress**	**Locus of Control**	**Well-being**
Stress	**22.11**	**7.75**	**.518**	**.871**	**1**		
Locus of Control	**19.86**	**4.95**	**-.752**	**.955**	**0.11**	**1**	
Well-being	**48.65**	**23.01**	**.300**	**-.609**	**-.40*** **	**.25*** **	**1**

Notes: M = Variable mean, SD = standard deviation, *** = p < .01

The correlation outcome showed a moderate negative and significant correlation between well-being and stress (r = -0.40, p-value < 0.01). The relationship was moderate because according to Cohen (1992), an absolute value of an effect size of between 0.3 and 0.5 is considered to be moderate. The finding was significant because the p-value was less than 0.05 (Filho et al., 2013). The correlation was negative because the effect size was less than 0. There was, on the other hand, a weak positive, but significant correlation between well-being and locus of control (r= 0.25, p-value <0 0.01). The correlation was positive, and the effect size was greater than zero. The finding was significant because the p-value was less than 0.05, but weak because the effect size was less than 0.3 (Cohen, 1992).

The skewness and kurtosis values were within acceptable range for both values. The acceptable values are -2 to +2 for skewness and -7 to + 7 for kurtosis (Byrne, 2010). This indicates that the constructs were normally distributed or approximated the normal distribution.

4.9 Regression analysis

4.9.1 Assumptions for regression analysis

A regression model was fitted with well-being as the response / dependent variable, perceived stress as the regressor / independent variable, and locus of control was specified as the

moderating variable. According to Aguinis (2004), multiple regression is used to assess a moderating effect by adding another variable, the interacting term in a model that already have the moderator variable (locus of control) and the independent variables (stress).

Some assumptions are made when fitting a regression model, these include that there is no multicollinearity, there are no outliers, normality of the residuals, homoscedasticity, and linearity. The data should adhere to the assumptions in order to apply a regression model (Cohen et al., 2003). The assumptions were tested, and the results are presented in this section.

4.9.1.1 Test for multicollinearity

Multicollinearity is a situation where the independent variables are related amongst themselves to the extent of negatively impacting on the quality of the regression model. This normally happens when there are independent variables with very high correlation coefficients ($r \geq 0.8$) (Sinclair, 2011). In this case, the correlation between the independent variables, stress, and locus of control ($r = 0.11$) was well below 0.8, which indicates that there was no problem of multicollinearity. Furthermore, the variance inflation factor values were assessed (see Table 4.12 below).

Table 4.12: Test for multicollinearity

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	48.741	1.599	30.47	<.0001	0	0
Stress		1	-1.250	0.220	-5.68	<.0001	-0.421	1.142
Locus of Control		1	1.381	0.325	4.24	<.0001	0.297	1.017
Interaction		1	-0.022	0.039	-0.56	0.5776	-0.041	1.141

All three VIF factors were less than 10, which confirms that there was no multicollinearity (Field, 2013; O'Brien, 2007).

4.9.1.2 Test for outliers

Box plots were plotted to assess whether there were extreme values that could negatively impact on the model. Outliers are marked with circles or asterisks on a box plot. While circles outside the whiskers signify outliers, asterisks signify extreme outliers.

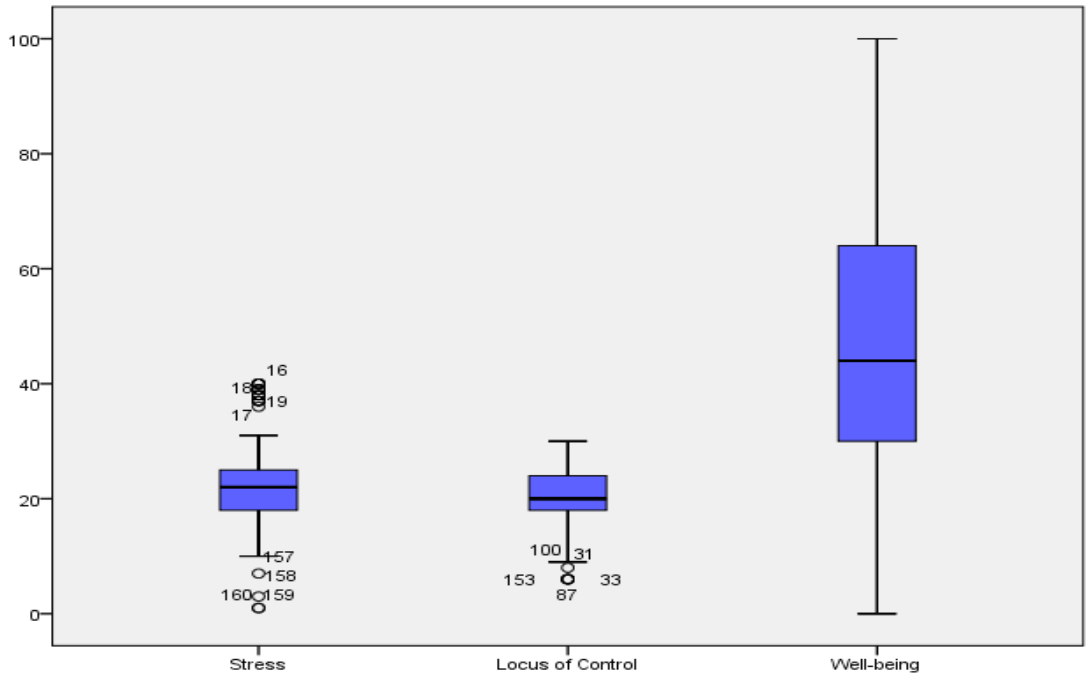


Figure 4.7: Boxplot

The box plots for all three constructs indicate that there were no extreme outliers as there were no values with an asterisk. According to Schiller et al. (2020), extreme outliers should be eliminated from the data as they may lead to a bias in the regression result. Outliers that were not extreme were retained in the data. Therefore, the assumption of there being no extreme values was met.

4.9.1.3 Normality of residuals

The residuals were plotted, and the charts are shown in Figure 4.8.

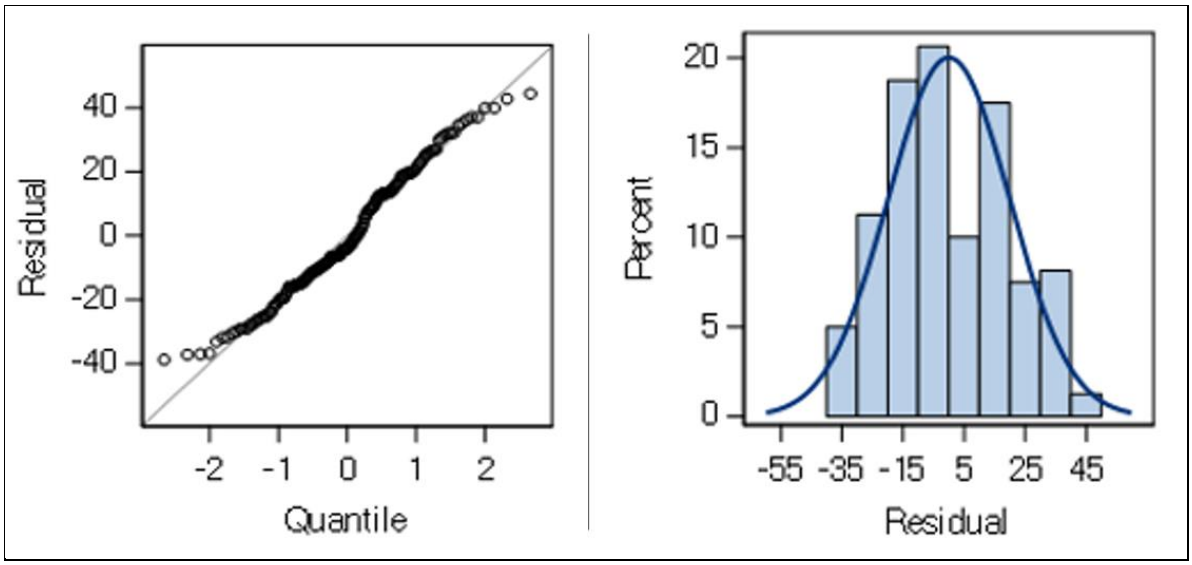


Figure 4.8: Normal P-P plot and Histogram

The histogram of the residuals shows that most of the bars were below the normal curve and the normal P-P plot had values close to the diagonal line showing normal distribution (Field, 2013; Schmidt & Finan, 2018). This indicates that the assumption of normality of residuals was met.

4.9.1.4 Test for Homoscedasticity

A plot of the residuals was conducted against each of the independent variables and the interaction term to assess for homoscedasticity. This shows an assumption that the residuals have equal variance (Figure 4.9).

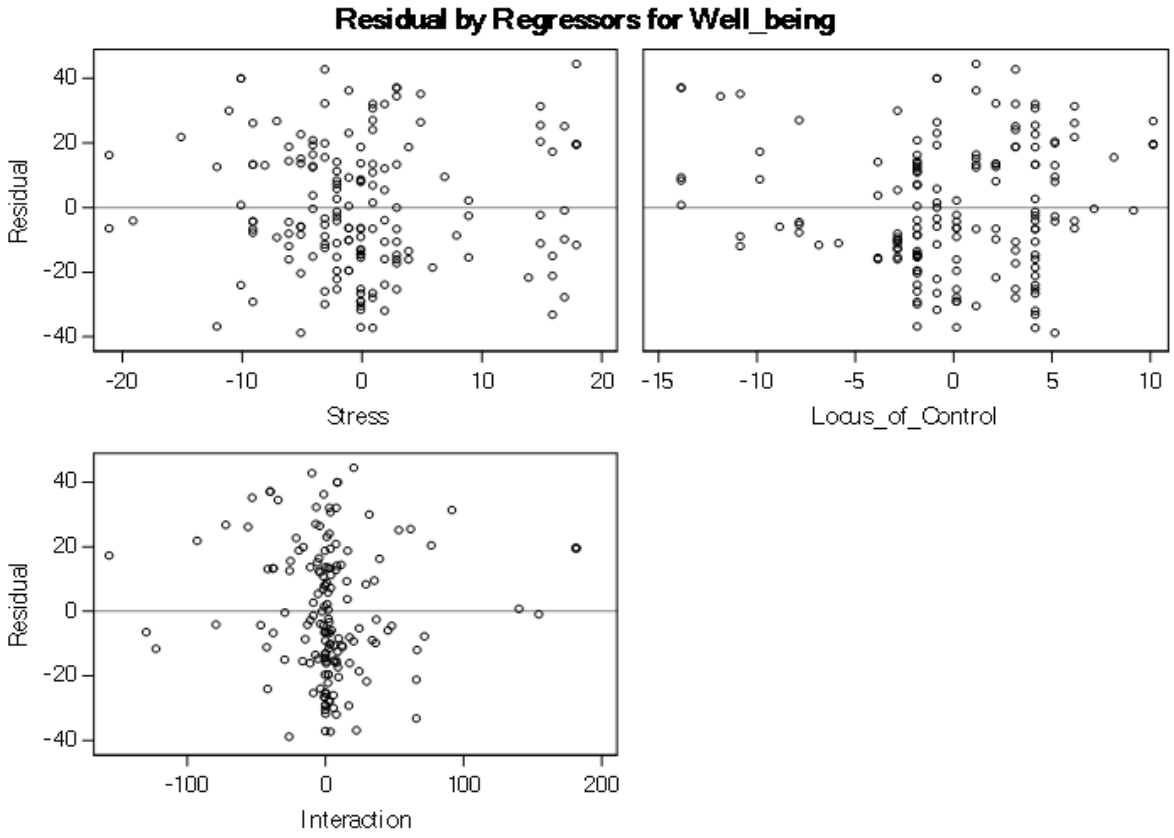


Figure 4.9: Plot of residuals

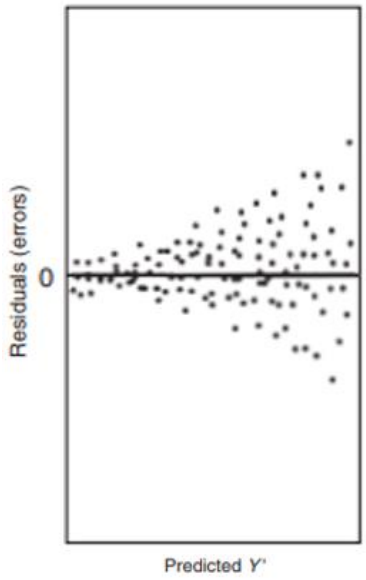


Figure 4.10: Example of heteroscedasticity (homoscedasticity) residuals

Note: *Example of heteroscedasticity (Not homoscedasticity) residual. From Discovering statistics using IBM SPSS statistics (Field, 2013)*

A plot of the residuals against each of the independent variables in Figure 4.9 indicated that the values were scattered randomly around the zero line, indicating that there was homoscedasticity. An example of a case where the is no homoscedasticity is shown in Figure 4.10 where the residuals are increasing with increasing dependent variable.

4.9.1.5 Test for linearity

The scatter plots were between each of the independent variables and moderating variables and the independent variable to assess linearity (Field, 2013).

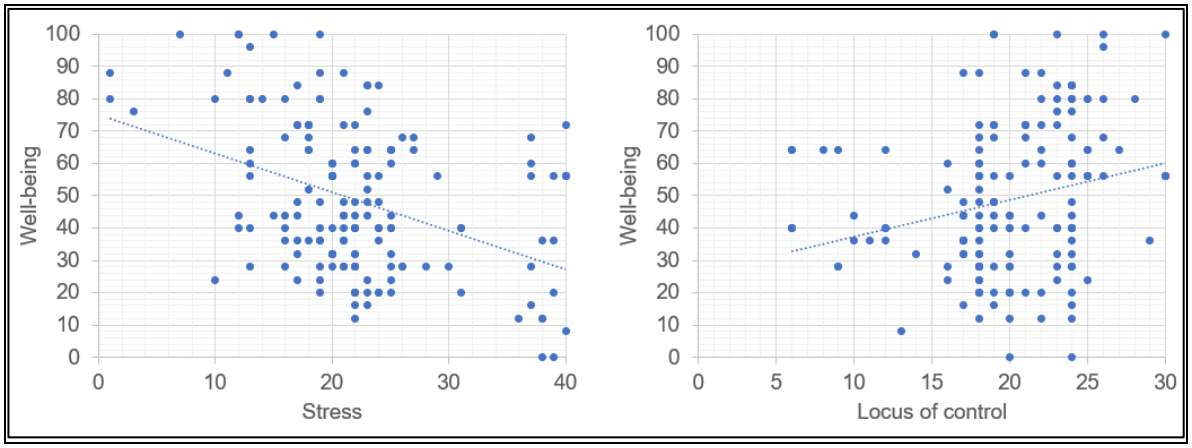


Figure 4.11: Scatter plots

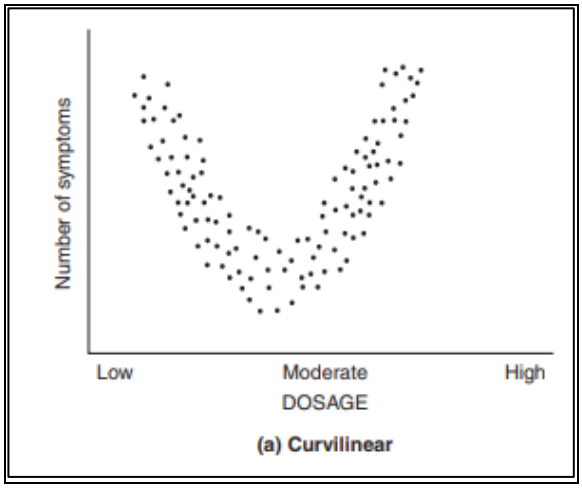


Figure 4.12: Example of a Non- linear plots

Note: *Example of Non-linear plots From Discovering statistics using IBM SPSS statistics (Field, 2013)*

The scatter plots shown in Figure 4.11 had superimposed trend lines that showed a negative linear relationship between stress and well-being. A positive relationship was shown by the

trendline on the scatter plot for locus of control and well-being (Field, 2013). Thus, the assumption for linearity was met. An example of a case where the relationship is a non-linear is a curvilinear relationship as shown in Figure 4.12.

It can be concluded that all the assumptions required for regression were met. Thus, the model was valid.

4.9.2 Multiple regression

All the assumptions for regression to be performed met. The objective of a regression model was to assess whether stress had a direct impact on well-being while that relationship was affected by locus of control. In the model stress, locus of control and well-being were, respectively, the independent variable, the moderating variable and the dependent variable. was to assess whether stress had a direct impact on well-being while that relationship is affected by locus of control. The regression results are presented in Tables 4.13 to 4.15.

Table 4.13: Model summary

Root MSE	20.12741	**R-Square**	0.2493
Dependent Mean	48.65000	**Adj R-Sq**	0.2349
Coeff Var	41.37187		

The model summary results that were produced for the regression model, shows that a model with stress as the dependent variable and locus of control as the moderating variable explained 24.93% of the variation in well-being (r-square = 0.2493). This means that if one knows the stress level and a person's locus of control, they can predict their well-being 24.93 times out of 100 times.

The Analysis of Variance (ANOVA) is shown in Table 4.14. The ANOVA table present results that test the null hypothesis that the independent variable and the moderator variables are not significant in predicting stress. The null hypothesis is rejected if the p-value is less than 0.05.

Table 4.14: Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	20991	6996.938	17.27	<.0001
Error	156	63198	405.113		
Corrected Total	159	84188			

The results in the ANOVA table in Table 4.14 indicate stress, locus of control and an interaction term (Stress x Locus of Control) were significant in predicting well-being as shown by a p-value less than 0.05. (p-value < .0001). This means that stress and locus of control together predict well-being.

The impact of each variable to well-being is summarised in Table 4.15. Showing moderation regression coefficients.

Table 4.15: Moderation regressions

	Model 1		Model 2		Model 3	
	B	β	B	β	B	β
Intercept	48.65***	0	48.65***	0	48.74***	0
Stress	-1.2***	-0.4	-1.29***	-0.44	-1.25***	-0.42
Locus of Control			1.37***	0.29	1.38***	0.3
Stress x Locus of Control					-0.02	-0.04
R2	0.16		0.25		0.25	

Dependent variable: Well-being
Independent variables: Stress, Locus of control, Stress x Locus of Control
Notes: **** = p < .01, ** = p < .05, * = p < .10*

The regression model was;

Well-being = 48.74 – 1.25 Stress + 1.38 Locus of control – 0.02 Stress x Locus of control.

The interpretation of this model is that a coefficient for stress of -1.25 indicates that when stress increase by 1 unit, well-being will decrease on average with 1.25 units while other variables are kept constant. A coefficient of 1.38 for locus of control indicates that an increase of 1 unit in locus of control, while other variables are kept constant, will lead to an average increase of 1.38 units in well-being. An increase of 1 unit in the interaction term Stress x Locus of control will lead to a 0.02 decrease in well-being. The intercept 48.74 means that the well-being will be on average 48.74 without taking stress and locus of control into consideration.

4.10 Results pertaining to the hypotheses

4.10.1 Hypothesis 1: Relationship between Stress and well-being

H0: There is no relationship between the stress and well-being of single mothers.

H1: There is a negative relationship between stress and the well-being of single mothers.

This is a one tailed test, with the relationship being expected to be negative. This is unlike a two tailed test where the direction of the relationship is not considered.

The results shown in Table 4.15 under model 3 shows that there is a negative and statistically significant relationship between stress and the well-being of single mothers (B= -1.25, β = -0.42, P-value < 0.01). The relationship was negative since the coefficient for stress was less than zero and was significant because the p-value was less than the significance level (0.05). This means that the null hypothesis was rejected in favour of the alternative hypothesis. This implies that hypothesis 1 was supported. This relationship was statistically significant with a

medium effect. It was therefore concluded that stress has a negative relationship with the well-being of single mothers.

4.10.2 Hypothesis 2: Locus of control as moderator between stress and well-being

H0: Locus of control does not moderate the relationship between stress and the well-being of single mothers.

H2: Locus of control moderates the relationship between stress and the well-being of single mothers.

The coefficient for the interaction term, Stress x Locus of Control (B= -0.02, β = -0.04, P-value > 0.05) was less than zero and the p-value was greater than 0.05. The p-value being greater than 0.05 implies that the null hypothesis could not be rejected at a 5% significance level. It is concluded that there is no sufficient evidence at a 5% significance level to suggest that locus of control moderates the relationship between stress and well-being. Thus, locus of control does not moderate the relationship between stress and the well-being of single mothers. This implies that the null hypothesis was not rejected.

The regression lines for the relationship between stress and well-being at various levels of locus of control are summarised in figure 4.13.

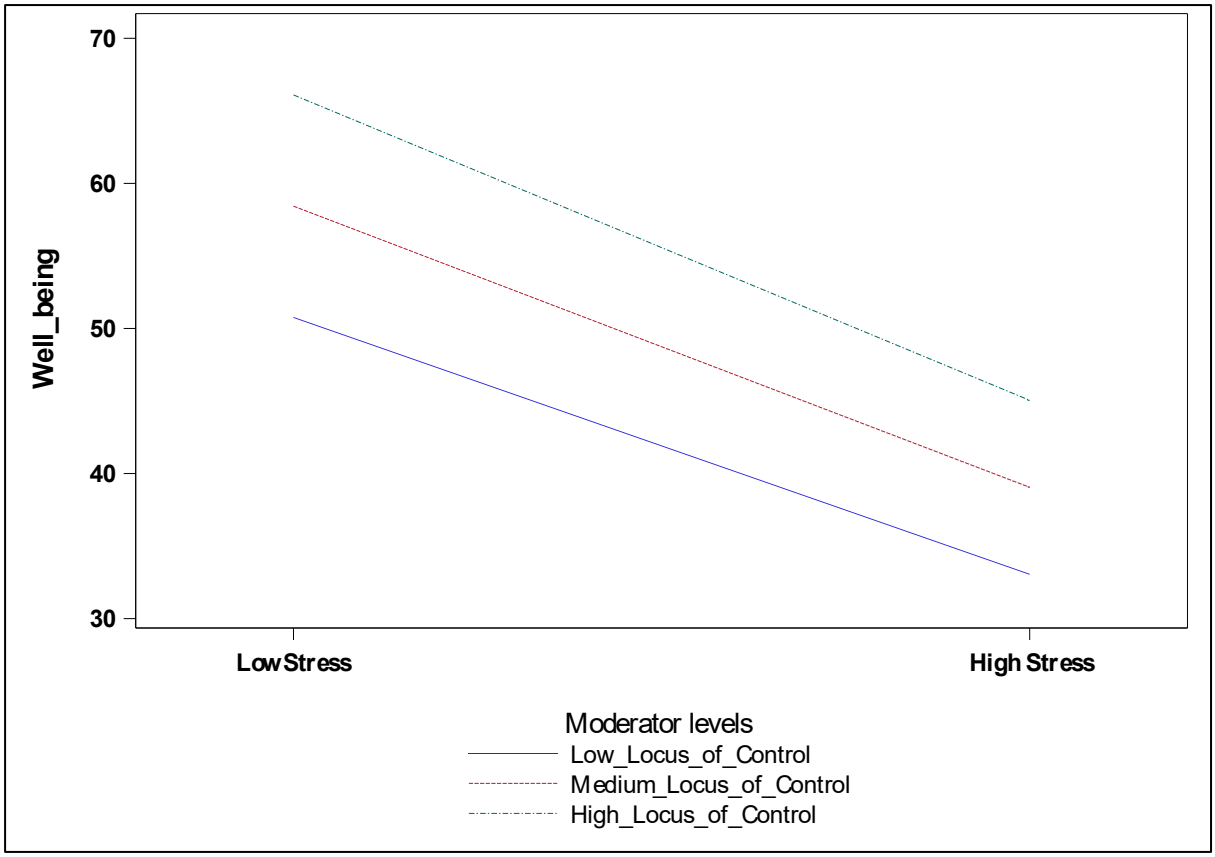


Figure 4.13: Moderating effect of locus of control on the relationship between stress and well-being

As was shown on the hypothesis results, the relationship between stress and well-being is negative irrespective of the level of locus of control. This confirms that locus of control does not moderate the relationship between stress and well-being.

Since the locus of control was found not to be a moderator of the relationship between stress and well-being, the research also assessed whether any of the other measured variables such as age, income and education were possible moderators.

The results revealed that income was a moderator of the relationship between stress and well-being, while education and age where not significant moderators. The results are presented in Table 4.16.

Table 4.16: Moderation Regressions

Moderation Regressions									
	Income Moderation			**Age Moderation**			**Education Moderation**	
	B	β		B	β		B	β
Intercept	48.38***	0.00	**Intercept**	48.59***	0.00	**Intercept**	48.34***	0.00
Stress	-1.1***	-0.37	**Stress**	-1.16***	-0.39	**Stress**	-1.11***	-0.37
Income	0.61	0.03	**Age**	0.87**	0.16	**Education**	0.48	0.02
Stress x Income	-0.3**	-0.15	**Stress x Age**	-0.02	-0.03	**Stress x Education**	-0.37*	-0.14
R-square	0.18		**R-square**	0.19		**R-square**	0.18	

Notes: ****< p-value < 0.001, ** p-value < 0.05, * P-value < 0.1*

The coefficient for the interaction term, Stress x Income (B= -0.3, β = -0.15, P-value < 0.05) was less than zero which implies that the moderation was negative. The p-value was less than 0.05, which implies that the null hypothesis was rejected at 5% significance level. It is concluded that income moderates the relationship between stress and well-being.

The coefficients for Stress x Age (B= -0.2, β = -0.03, p-value > 0.05), as well as that for Stress x Education (B= -0.37, β = -0.14, P-value > 0.05) were both negative indicating a negative moderation, but the p-values were greater than 0.05 indicating that both age and education level were not significant moderators of the relationship between stress and well-being.

The chart below (Figure 4.14) illustrates the moderating impact of income on the relationship between stress and well-being as indicated by the steepness of the regression lines. The regression line for high income is the steepest, followed by that for medium income and the

regression line for low income is the least steep. This indicates that the higher the income the stronger the negative relationship between stress and well-being.

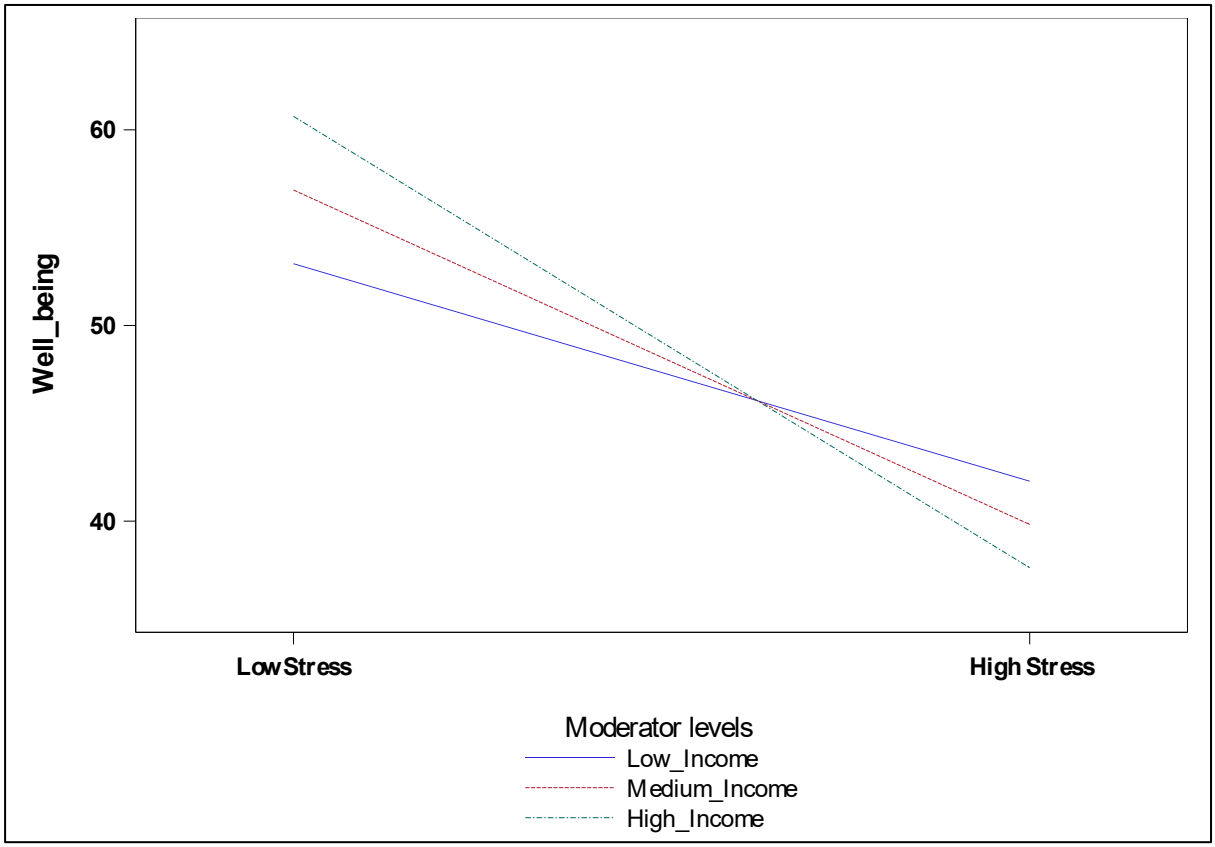


Figure 4.14: Moderating effect of income on the relationship between stress and well-being

4.11 Summary

In summary, the analysed sample had 160 single mothers who were mainly between 18 to 38 years old and working full time. The validity of the scale was tested using EFA while reliability was tested using Cronbach's Alpha. Both the validity and reliability levels were acceptable.

The findings for hypothesis testing after multiple regression was conducted supported Hypothesis 1, namely *There is a negative relationship between stress and the well-being of single mothers.* On the other hand, Hypothesis 2, namely *Locus of control moderates the*

relationship between stress and the well-being of single mothers was not supported but the relationship was rather moderated by the respondents' income. Chapter 5 will present the interpretation of findings, limitations of the study, provide recommendations for future research and finally the conclusion of the study.

CHAPTER 5 : DISCUSSION OF RESULTS

5.1 Introduction

This chapter discussed the findings of the study that are presented in Chapter 4. A reflection on the demographics of the sample is presented followed by a reflection on the validity and reliability of the constructs. Each hypothesis findings are then discussed while the findings are also compared to previous research findings that are explored in the literature section. This chapter ends with a summary of the results.

5.2 Demographics

The findings revealed that the highest proportion of the respondents were from the northern Johannesburg suburb of Ferndale. The sample was predominantly black. Single mothers were mainly between 18 – 38 years old with the average age of 28.78 years. In developmental psychology, the age range from 18 to 29 years is known as emerging adulthood (Arnett et al., 2014). In a woman's life, this stage is called the reproductive years because it is assumed that at this age the woman requires intimacy. The society values women at this stage for their ability to reproduce (Schuiling & Low, 2006). The average age of the respondents in this current study was within the reproductive years in a woman's life span.

The highest level of education among the respondents was matric. A previous study reported that single mothers are bound to have a lower level of education as contrasted to married mothers (Morosow & Jalovaara, 2019). On the other hand, Vyskocil (2018) reported that there is a high rise in demographics of single mothers at universities. This implies that even though single mothers are reported of having a low level of education, some of them are improving their educational levels.

Most of the respondents were working full-time and more than two thirds of the sample earned R10 000 or less per month. The impact of having a low level of education is shown in the current study as most of the single mothers earn R10 000 or less a month. However, Vyskocil (2018) reported that having less or no income among single mothers can be due to various reasons including gender inequalities at the workplace.

Most of the respondents had one child under the age of 6 years that was staying with them. The respondents mainly mentioned that they left their child or children with relatives when they go to work. Most of the respondents were not receiving any help from the fathers of their children. However, for those who were receiving support, it was mostly for maintenance support. In the case of maintenance support, Hakovirta and Jokela (2019) reported that although some single mothers receive maintenance support, it was very little.

5.3 Descriptive statistics of the scales

The current study found that the respondents were experiencing high stress levels. These results were not alarming as previous studies reported the same findings. Single mothers were found to be facing many challenges that led them to stressful situations (Hashim et al., 2015; Rousou et al., 2016; Williams, 2016).

The results regarding locus of control found that the respondents were more inclined to an internal locus of control than external locus of control. This was supported by Ghani and Hashim (2013) who found that internal locus of control was more dominant in single mothers. Despite the fact that single mothers were experiencing many challenges, most of them had control over the challenges they were facing (Ghani & Hashim, 2013).

Furthermore, the respondents were found to be experiencing high well-being levels half the time. The high well-being levels might have been caused by the fact that most single mothers had control over their lives. These findings were similar to a study which reported that psychological well-being had a median value among single mothers (Oh Nam, 2005).

5.4 Validity and reliability of constructs

The results for the current study are based on statistically valid and reliable constructs. All the constructs retained all the originally hypothesised items. Convergent validity was confirmed because all the items converged into their respective constructs with none with a factor loading below the cut-off of 0.5 (Wang & Li, 2017). The constructs were unidimensional because each construct had one factor only (Farooq, 2016).

All three scales used in the current study were reliable. The Cronbach's Alpha values for each scale was greater than 0.7 (van Griethuijsen et al., 2015).

5.5 Discussion of findings

The hypotheses that guided the current study were:

Hypothesis 1

H0: There is no relationship between stress and the well-being of single mothers.

H1: Stress negatively impacts on the well-being of single mothers.

Hypothesis 2

H0: Locus of control does not moderate the relationship between stress and the well-being of single mothers.

H2: Locus of control moderates the relationship between stress and the well-being of single mothers.

The findings related to each of these hypotheses will now be discussed.

5.5.1 Discussion for Hypothesis 1: Relationship between stress and well-being

The purpose of the current study pertaining to Hypothesis 1 was to investigate whether there was a negative relationship between stress and the well-being of single mothers. This hypothesis was supported, indicating that there was sufficient evidence to suggest that stress had a negative impact on the well-being of single mothers.

This relationship was statistically significant with a medium effect. A significant relationship implies that if another sample were to be studied, there is a 95% chance that the same results will be found. A medium effect means that although the relationship was not weak, it was not very strong either. This means that a single mother with high stress levels is likely to have a poor well-being, although it will not always be the case. It was noted that this relationship is affected by the income level of the single mothers.

It was as expected to find a negative relationship between perceived stress and psychological well-being, previous research suggests, that stress negatively impact on well-being (Australian Psychological Society, 2015; Clemente et al., 2016; Kózka & Przybyła-Basista, 2016; PISA, 2015; Strizhitskaya et al., 2018; Wersebe et al., 2018b; Wike, 2015).

In Australia, it was found that levels of well-being were higher among married parents than in single parents (Australian Psychological Society, 2015). There was a difference in well-being

levels among parents who believed that parenthood was challenging and parents who were happy and satisfied with parenthood (Kózka & Przybyła-Basista, 2016).

The same results were found between general stress and psychological well-being of single mothers in India. The relationship was found to be negative between these two variables. It was also found that elevated levels of stress found in single mothers were due to financial and emotional challenges that consequently affect the well-being of single mothers (Chanda & Pujar, 2018).

Another study found an inverse correlation between subjective stress level and subjective well-being. The study also found that married individuals were more content with their lives than their single counterparts (Zarbova & Karabeliova, 2018).

A negative correlation was also found in the study among teachers in the Eastern Cape in South Africa. The study was between well-being indicators and psychological stress (Vazi et al., 2013). In this study, subjective well-being and psychological well-being were measured separately.

Similarly, results were found in previous studies about the inverse correlation between job or occupational stress and psychological well-being (Adegoke, 2014; Akpunne, 2015; Basińska, 2010; Jain et al., 2013; Malek et al., 2009; Poormahmood et al., 2017; Saka et al., 2018; Sonnentag, 2018; Suleman et al., 2018; Wang et al., 2017). Indistinguishable findings were recorded on the correlation between financial stress and well-being (Bernardo & Resurreccion, 2018). High levels of financial stress was equal to poor well-being levels. In the study by

Bernardo and Resurreccion (2018), life satisfaction which is a component of subjective well-being was measured.

Contrastingly, the results were not in harmony with the findings by Yunus and Mahajar (2011) as well as findings by Louw and Viviers (2010), who found a significant positive correlation in their respective studies between occupational stress and well-being. These studies indicate that stress does not always impact negatively on well-being. The context of the stress being measured may influence its relation to well-being.

There were other studies that did not find a significant relationship between stress and well-being. There was no significant correlation between psychological well-being and stress of working women (Madhusudanan & Nalini, 2017). This outcome was supported by Krause (2019) who used happiness as a component to measure well-being. The difference in the results might be because the sample for both studies was characterised by educated respondents. Krause indicated that educated people are more likely to manage stress than those who are not educated.

Differences in results might have been caused by many factors. Some studies used components of stress or components of well-being to measure these two variables. The context of the stress being measured may also have an influence on its relation to well-being. The sample of the current study may also have played an important role, in this case there are studies that had a sample of educated working respondents (Krause, 2019; Madhusudanan & Nalini, 2017). Other studies focused on different types of stress and different aspects of well-being which might have led to differences in findings. On the account of the correlation between job stress and well-being, the types of jobs evaluated might lead to differences in results. In most studies that recorded a negative relationship between these variables, the sample worked under stressful

conditions, for example police employees (Adegoke, 2014), formal care givers (Akpunne, 2015), and firemen (Basińska, 2010; Malek et al., 2009). Studies that recorded a positive relationship had a sample of government officers that consisted of administrative and diplomatic officers (Yunus & Mahajar, 2011) and police officers who regularly attended in-service training (Louw & Viviers, 2010). The current study measures general stress and general well-being, and it did not dissect these variables into components or different types of stress and well-being.

There is need for further studies that focus on general stress and general well-being without dissecting these two variables into types, components, or dimensions.

5.5.2 Hypothesis 2: Locus of control as a moderator between stress and well-being

The aim of Hypothesis 2 was to assess whether locus of control moderated the relationship between stress and well-being.

The results show that locus of control does not moderate the effect of stress on well-being. There was no sufficient evidence at a 5% significance level to suggest that locus of control moderates the correlation between stress and well-being. Therefore, Hypothesis 2 was not supported. A previous study that obtained the same results was a study on patients with schizophrenia. Locus of control was found not to moderate the effect of stress on well-being (Weintraub et al., 2015). The authors explained that the results could be due to the strength of the relationship between psychotic symptoms and locus of control which affected the power of moderation analysis.

This finding of the current study was, however, not in agreement with findings among Chinese migrants (Xia & Ma, 2020a). Locus of control moderated the relationship between stress and mental illness (a dimension of well-being) (Slade, 2010). Young (2001) recorded the same notion in a study among Salvadoran refugees. They reported that locus of control moderates the relationship between stress in migrants and quality of life, and migration stress and life satisfaction.

The type of stress investigated and the fact that well-being was investigated as quality of life and life satisfaction which are components of well-being might have been the cause of the distinction in results (Camfield & Skevington, 2008). Krause and Stryker (1984) also supported these findings through their study on the impact of locus of control on job stress and psycho-physiological well-being. Furthermore, internal locus of control as a moderator weakened the relationship between stress and well-being, while external locus of control strengthened the impact (Daniels & Guppy, 1994). The difference in the results might be because locus of control was broken into internal locus of control and external locus of control. In this study locus of control in general (in other words as two ends of a continuum) was investigated.

The current study concluded that locus of control does not moderate the relationship between stress and well-being. In other words, for the current sample the relationship between stress and well-being was not affected by their locus of control.

Conversely, income was found to have a significant impact on the relationship between stress and well-being. It was established that the higher the level of income the stronger the relationship between stress and well-being. This implies that if a high-income earner has high stress levels their well-being will be lower. This could be due to high workloads which leads

to high stress levels, hence negatively impacting on well-being levels (Syrén et al., 2020). On the other hand, an equal amount of stress exerted on a low-income earner does not significantly affect their level of well-being as it could to high income earners.

5.6 Summary

In summary, the current research indicated that as single mothers experience high-stress levels their well-being was compromised. It was found that locus of control did not lessen the effect of stress on the well-being of single mothers.

A conclusion of the study, limitations of the study and recommendations will be presented in Chapter 6.

CHAPTER 6 : CONCLUSION

6.1 Introduction

In this study, it was established that the number of single mothers continues to be on the rise in South Africa and worldwide. Due to the challenges faced by single mothers as they singlehandedly raise their children, they succumb to stressful situations which subsequently affect their well-being. With high-stress levels impacting on well-being, locus of control was introduced to investigate whether it could lead to single mothers being more resilient when dealing with stress. The main aim was to explore the relationship between stress and well-being and to determine the impact of locus of control on the relationship between these two variables.

This final chapter provides a final reflection on the research questions in the study and its strengths and limitations while it provides recommendations for future research.

6.2 Conclusion to research question 1: Relationship between stress and well-being

The current study investigated whether there was a relationship between stress and well-being. It was hypothesised that stress negatively impacts on well-being. The results concluded that there was a statistically significant negative relationship between stress and well-being with a medium effect size.

This finding shows that as the stress levels of single mother's increase, their well-being levels decrease; and vice versa.

6.3 Conclusion to research question 2: Locus of control moderate the relationship between stress and the well-being of single mothers

The impact of locus of control on the relationship between stress and well-being was investigated. The findings for research question two concluded that locus of control does not moderate the relationship between stress and well-being. The relationship between stress and the well-being of single mothers is not impacted by their locus of control.

The researcher went on to test other variables like education, age and income, after finding that locus of control did not have an impact on the relationship between stress and well-being. Income was found to moderate the relationship between stress and well-being. These findings were just exploratory, and no preceding literature review informed a hypothesis.

6.4 Consistency matrix table

The table below (Table 6.1) indicates a consistency matrix table with a summary of conclusions to the research questions and the contributions of the current study.

Table 6.1: Consistency matrix table

Research questions	Literature-based hypothesis	Conclusions	Contribution to knowledge
Is there a relationship between stress and the well-being of single mothers?	There is a negative relationship between stress and the well-being of single mothers.	There is a negative relationship between stress and the well-being of single mothers.	It was hypothesised that there was a negative relationship between stress and well-being. The results of the current study tied up with literature.
Does locus of control moderate the relationship between stress and the well-being of single mothers?	Locus of control moderates the impact of stress on the well-being of single mothers.	Locus of control does not moderate the impact of stress on the well-being of single mothers.	Locus of control was hypothesised to moderate the impact of stress on the well-being of single mothers, but the results concluded that locus of control does not moderate the impact of stress on well-being.

Note: *Research questions, conclusions, and contribution to knowledge* as adopted from WITS Business School Research Process Guidelines 2019/2020

6.5 The strengths of the study

The study objectives were clearly stated, which were to determine the relationships between stress and well-being, and to determine whether locus of control moderates the relationship between stress and the well-being of single mothers. Single mother statistics were obtained from Statistics South Africa (Statistics South Africa, 2019). This confirms that statistics were obtained from a reliable source. Furthermore, the validity and reliability of the questionnaires used was explored for reliable results and the questionnaires were found to be valid and reliable. The researcher obtained data for single mothers from different socio-economic backgrounds. This shows that single mothers were not discriminated against because of their socio-economic

backgrounds. The study was conducted among single mothers who reside in the northern suburbs of Johannesburg.

6.6 Limitations of the study

The current study only investigated single mothers with children aged between 0 to 6 years. As the sample does not include single mothers with older children and completely excluded single fathers, the current study does not have information from single mothers with older children and single fathers.

The study was only a quantitative study and there was no qualitative insight. The respondents were not examined or observed and their in-depth understanding of issues they were facing were not taken into consideration. The use of purposive sampling also contributed to the limitations of the study as research findings can not to be generalized to the rest of single mothers in South Africa. Furthermore, questionnaires were received in the same order by respondents, so readers need to be aware of response bias and order effects. The respondents might have felt pressured to answer questions and might also have answered questions untruthfully. More variables could have been investigated from the onset to get a depth understanding of the research problem.

6.7 Recommendations

It is prescribed that future investigations be stretched to single fathers as well because the number of single fathers is increasing in societies. There is need for future studies to be conducted in other areas. In future studies, a bigger sample can help strengthen the findings.

The inclusion of a qualitative section in similar studies is recommended because it gives an in-depth understanding of the quantitative findings.

For better and in-depth results, each component and each dimension of well-being must be measured and not only focus on general well-being. Further studies must investigate more on the impact of locus of control on the relationship between stress and well-being because there is limited literature on the subject.

More moderating variables could be investigated from the onset to get a depth understanding of the research problem.

6.8 Conclusion

As expected, it was found that single mothers experience stress in their day to day lives as they try to raise their children and take care of themselves. These stressful experiences affect their well-being. The research findings indicated that single mothers experience exorbitant stress levels, their well-being levels tend to be low and vice versa. It was also reported that locus of control does not affect the relationship between stress and well-being in single mothers.

More studies need to be done for a better understanding of single mothers. The cost of support and intervention programs is very high (George et al., 2020) and one cannot afford to base interventions on unfounded assumptions. Therefore, there is need for researchers who are passionate about single mothers or single parents who can continue research on single parent households.

References

Adegoke, T. (2014). Effects of occupational stress on psychological well-being of police employees in Ibadan Metropolis, Nigeria. *African Research Review*, *8*(1), 302. https://doi.org/10.4314/afrrev.v8i1.19

Agero, L. B., & Guhao, E. S. (2016). Single parents of school children: Tales of survival. *International Journal of Advancements in Research & Technology*, *5*(6), 99–112.

Agnafors, S., Bladh, M., Svedin, C. G., & Sydsjö, G. (2019). Mental health in young mothers, single mothers and their children. *BMC Psychiatry*, *19*(1), 1–7. https://doi.org/10.1186/s12888-019-2082-y

Aguinis, H. (2004). *Regression Analysis for Categorical Moderators*. The Guildford Press.

Akpunne, B. C. (2015). Psycho-social factors and psychological wellbeing of formal caregivers. *European Journal Humanities and Social Science*, *34*(January 2015), 1855–1871.

Ali, S. K., & Soomar, S. M. (2019). Single parenting: Understanding reasons and consequences. *JOJ Nursing & Health Care*, *10*(2), 1–3. https://doi.org/10.19080/jojnhc.2019.10.555781

American Psychological Association. (n.d.). *Stress*. APA Dictionary of Psychology. https://dictionary.apa.org/stress

American Psychological Association. (2017). American Psychological Association. Ethical Principles of Psychologists and Code of Conduct. *American Psychologist*, *57*(12), 1–20. https://doi.org/10.1037/0003-066X.57.12.1060

Anshel, M. H., & Brinthaupt, T. M. (2014). An exploratory study on the effect of an Approach-Avoidance Coping Program on perceived stress and physical energy among police officers. *Psychology*, *5*(May), 676–687.

Anton, M. T., Jones, D. J., & Youngstrom, E. A. (2015). Socioeconomic status, parenting,

and externalizing problems in African American single-mother homes: A person-oriented approach. *Journal of Family Psychology*, *29*(3), 405–415. https://doi.org/10.1037/fam0000086

April, K. A., Dharani, B., & Peters, K. (2012). Impact of locus of control expectancy on level of well-being. *Review of European Studies*. https://doi.org/10.5539/res.v4n2p124

Arnett, J. J., Žukauskiene, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18-29 years: Implications for mental health. *The Lancet Psychiatry*, *1*(7), 569–576. https://doi.org/10.1016/S2215-0366(14)00080-7

Australian Psychological Society, A. (2015). Stress & wellbeing: How Australians are coping with life. In *Australian Psychological Society Stress and wellbeing in Australia survey 2015* (Issue Psychology).

Avison, W. R. (1997). Single motherhood and mental health: implications for primary prevention William. *Canadian Medical Association Journa*, *156*(5), 661–663.

Babar Dharani. (2014). *Organizational lifecycle and happiness at work: Investigating best-fit for employees based on their locus of control expectancy*.

Bacon, M., & Ashmore, R. (1986). A consideration of the cognitive activities of parents and their role in the socialization process parental cognition and socialization: Questions, methods, and significance. In R. D. Ashmore & D. M. Brodzinsky (Eds.), *Thinking about the family: Views of parents and children*. Lawrence Erlbaum Associates Publishers.

Bandura, A. (1971). *Social learning theory*. General learning Press. https://doi.org/10.1016/B978-0-12-813251-7.00057-2

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in Social Psychological Research: Conceptual, strategic , and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.

Basińska, B. (2010). *The effect of job-related stress on psychological well-being among Firemen in Poland*. Gdansk University of Technology, Poland.

Berg, A. I., & Johansson, B. (2014). Personality change in the oldest-old: Is it a matter of compromised health and functioning? *Journal of Personality*, *82*(1), 25–31. https://doi.org/10.1111/jopy.12030

Bergvik, S., Sørlie, T., & Wynn, R. (2012). Coronary patients who returned to work had stronger internal locus of control beliefs than those who did not return to work. *British Journal of Health Psychology*. https://doi.org/10.1111/j.2044-8287.2011.02058.x

Bernardi, R. A. (2011). The relationships among locus Of control, perceptions of stress and performance. *Journal of Applied Business Research (JABR)*, *13*(4), 1. https://doi.org/10.19030/jabr.v13i4.5736

Bernardo, A., & Resurreccion, K. F. (2018). Financial stress and well-being of Filipino Students: The moderating role of external locus-of-hope. *Philippine Journal of Psychology*, *51*(1), 33–61. https://doi.org/10.31710/pjp/0051.01.03

Bjorgvinsdottir, K., & Halldorsdottir, S. (2014). Silent, invisible and unacknowledged: Experiences of young caregivers of single parents diagnosed with multiple sclerosis. *Scandinavian Journal of Caring Sciences, 28*(1), 38–48. https://doi.org/10.1111/scs.12030

Bliese, P. D., Edwards, J. R., & Sonnentag, S. (2017). Stress and well-being at work : A century of empirical trends reflecting theoretical and societal influences. *Journal of Applied Psychology*, *102*(3), 389–402. https://doi.org/http://dx.doi.org/10.1037/apl0000109

Booth, B. (2013). *Flourishing Mothers : A Positive Psychology-Based Coaching Strategy for Women* [University of Pennsylvania]. https://doi.org/. http://repository.upenn.edu/mapp_capstone/43

Brophy, M. (n.d.). *Parenting and wellbeing : knitting families together*.

Broussard, C. A., Joseph, A. L., & Thompson, M. (2015). *Stressors and Coping Strategies Used by Single Mothers Living in Poverty*. https://doi.org/10.1177/0886109912443884

Brown, M., & Ralph, S. (1992). Towards the identification of stress in teachers. *Research in Education*, *48*(1). https://doi.org/10.1177/003452379204800110

Bruce, S. P. (2009). Recognizing stress and avoiding burnout. *Currents in Pharmacy Teaching and Learning*, *1*(1), 57–64. https://doi.org/10.1016/j.cptl.2009.05.008

Bucher-Koenen, T., Farbmacher, H., Guber, R., & Vikström, J. (2020). Double trouble: The burden of child-rearing and working on maternal mortality. *Demography*, *57*(2), 559–576. https://doi.org/10.1007/s13524-020-00868-6

Bull, T., & Mittelmark, M. B. (2009). *Work life and mental wellbeing of single and non-single working mothers in Scandinavia*. *May*, 562–568. https://doi.org/10.1177/1403494809340494

Burns, R. A. (2008). *Exploring the effects of employee and organisational characteristics on two models of employee well-being within an organisation health research framework*.

Byrne, B. M. (2010). *Structural Equation Modeling with AMOS: Basic concepts, application, and programming* (Second Edi).

Cairney, J., Boyle, M., Offord, D. R., & Racine, Y. (2003). Stress, social support and depression in single and married mothers. *Social Psychiatry and Psychiatric Epidemiology*. https://doi.org/10.1007/s00127-003-0661-0

Camfield, L., & Skevington, S. M. (2008). On subjective well-being and quality of life. *Journal of Health Psychology*, *13*(6), 764–775. https://doi.org/10.1177/1359105308093860

Campion, J., & Nurse, J. (2007). A dynamic model for wellbeing. *Australasian Psychiatry*, *15*(SUPPL. 1), 24–29. https://doi.org/10.1080/10398560701701106

Carlson, M. J., & Berger, L. M. (2013). What kids get from parents: Packages of parental involvement across complex family forms. *Social Service Review*. https://doi.org/10.1086/671015

Castillo, E. M. (2018). *The single working mother`s experience of listening to New Age Music for stress*.

Chanda, K., & Pujar, L. (2018). Stress and psychological well-being among single parents. *International Journal of Pure & Applied Bioscience*, *6*(4), 226–232. https://doi.org/10.18782/2320-7051.6692

Chandiramani, K. (2014). Locus of control and subjective wellbeing: Examining gender differences. *Indian Journal of Health and Wellbeing*, *5*(3), 325–329.

Chant, S. (1985). Single-parent families: Choice or constraint? The formation of female-headed households in Mexican shanty towns. *Development and Change*, *16*(4), 635–656. https://doi.org/10.1111/j.1467-7660.1985.tb00227.x

Chen, J. C., & Silverthorne, C. (2008). The impact of locus of control on job stress, job performance and job satisfaction in Taiwan. *Leadership & Organization Development Journal*, *29*(7), 572–582. https://doi.org/10.1108/01437730810906326

Chiu, M., Rahman, F., Vigod, S., Lau, C., Cairney, J., & Kurdyak, P. (2018). Mortality in single fathers compared with single mothers and partnered parents: a population-based cohort study. *The Lancet Public Health*, *3*(3), e115–e123. https://doi.org/10.1016/S2468-2667(18)30003-3

Choi, J. K. (2010). Nonresident fathers' parenting, family processes, and children's development in urban, poor, single-mother families. *Social Service Review*, *84*(4), 655–677. https://doi.org/10.1086/657422

Chzhen, Y., & Bradshaw, J. (2012). Lone parents, poverty and policy in the European Union. *Journal of European Social Policy*, *22*(5), 487–506.

https://doi.org/10.1177/0958928712456578

Clark, S., & Hamplová, D. (2013). Single motherhood and child mortality in Sub-Saharan Africa: A life course perspective. *Demography*, *50*(5), 1521–1549. https://doi.org/10.1007/s13524-013-0220-6

Clemente, M., Hezomi, H., Allahverdipour, H., Jafarabadi, M. A., & Safaian, A. (2016). *Journal of Child & Adolescent Behavior Stress and Psychological Well-being : An Explanatory Study of the Iranian Female Adolescents*. *4*(1), 1–5. https://doi.org/10.4172/2375-4494.1000282

Codsi, S. (2019). ‘ Father , father , where are you going?’: Epicurean deism and absent fathers in Blake`s songs of innocence and experience. *Literature & Theology*, *33*(4), 357–375. https://doi.org/10.1093/litthe/frz028

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences.* (Third). Lawrence Erlbaum Associates Publishers.

Cohen, S., Kessler, R. C., & Gordon, L. U. (1995). Strategies for measuring stress in studies of psychiatric and physical disorders. In *Measuring stress: A guide for health and social scientists* (pp. 3–26).

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31–67). Sage.

Colombo, S. A. (1986). *General well-being in adolescents: It`s nature and measurement*. Saint Louis University.

Conte, S. (2018). Are more internal locus of control and well-ness an effect of theater

therapy? *Journal of Psychology and Behavioral Science*, *6*(2), 44–48. https://doi.org/10.15640/jns.v6n2a5

Cooper, C., McLanahan, S. S., Meadows, S. O., & Brooks-Gunn, J. (2009). Family structure transitions and maternal parenting stress. *Journal of Marriage and Family*. https://doi.org/10.1111/j.1741-3737.2009.00619.x

Copeland, D., & Harbaugh, B. L. (2005). *Differences in parenting stress between married and single first time mothers at six to eight weeks after birth*. *February*, 139–152. https://doi.org/10.1080/01460860500227556

Crabtree, S., & Kluch, S. (2020). *How many women worldwide are single moms?* Gallup. https://news.gallup.com/poll/286433/women-worldwide-single-moms.aspx#:~:text=Sub-Saharan Africa has the,mothers worldwide%2C at 32%25

Cronbach, L. J., & Shavelson, R. J. (2004). My current thoughts on coefficient alpha and successor procedures. *Educational and Psychological Measurement*, *64*(3), 391–418. https://doi.org/10.1177/0013164404266386

Crosier, T., Butterworth, Æ. P., & Rodgers, Æ. B. (2007). *Mental health problems among single and partnered mothers*. 6–13. https://doi.org/10.1007/s00127-006-0125-4

Crothers, L. M., Kanyongo, G. Y., Kolbert, J. B., Lipinski, J., Kachmar, P., Koch, G. D., Crothers, L. M., Kanyongo, G. Y., Kolbert, J. B., Lipinski, J., Kachmar, S. P., & Koch, G. D. (2019). *Job stress and locus of control in teachers : comparisons between samples from the United States and Zimbabwe Source : International Review of Education / Internationale Zeitschrift für Published by : Springer Stable URL : https://www.jstor.org/stable/410*.

Cui, G. A. (2013). *Effects of students' characteristics and locus of control on their satisfaction with online distance education experienceitle*. Virginia Polytechnic Institute and State University.

Cuppari, M. M. A. (2018). *Internal locus of control and active coping styles as protective factors in psychological well-being in adult children of divorce* [Collage of Saint Elizabeth]. https://doi.org/10.1017/CBO9781107415324.004

D`Mello, L., Govindaraju, B. ., & Monteiro, M. (2016). A study on the challenges faced by single parent on teenage care. *International Journal of Advanced Trends in Engineering and Technology (IJATET)*, *I*(I), 54–59.

Daniels, K., Guppy, A. (1994). Occupational stress, social support, job control, and psychological well-being. *Human Relations*, *47*(12), 1523–1544.

Daniels, K., & Guppy, A. (1994). Occupational stress, social support, job control, and psychological well-being. *Human Relations*, *47*(12), 1523–1544.

Darshani, R. K. N. D. (2014). A review of personality types and locus of control as moderators of stress and conflict management. *International Journal of Scientific and Research Publications*, *4*(2), 1–8.

Daryanani, I., Hamilton, J. L., Abramson, L. Y., & Alloy, L. B. (2016). Single mother parenting and adolescent psychopathology. *Journal of Abnormal Child Psychology*, *44*(7). https://doi.org/10.1007/s10802-016-0128-x

Daryanani, I., Hamilton, J. L., McArthur, B. A., Steinberg, L., Abramson, L. Y., & Alloy, L. B. (2018). Cognitive vulnerabilities to depression for adolescents in single-mother and two-parent families. *J Youth Adolesc.*, *46*(1), 213–227. https://doi.org/10.1007/s10964-016-0607-y.Cognitive

Dave, R., Tripathi, K. N., Singh, P., & Udainiya, R. (2011). Subjective Well-being, Locus of Control and General Self-Efficacy among University Students. *Amity Journal of Applied Psychology*, *2*(1), 28–32. http://www.library.umaine.edu/auth/EZProxy/test/authej.asp?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=83755704&site=ehost-live

Devin, H. F., Ghahramanlou, F., Fooladian, A., & Zohoorian, Z. (2012). The relationship between locus of control (internal – external) and happiness in pre-elementary teachers in Iran. *Procedia - Social and Behavioral Sciences*, *46*, 4169–4173. https://doi.org/10.1016/j.sbspro.2012.06.220

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542–575. https://doi.org/10.1037/0033-2909.95.3.542

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective Well-being: Three Decades of progress. *Psychological Bulletin*, *125*(2), 276–302. https://doi.org/10.1006/pupt.1998.0157

Diener, E., Suh, E., & Oishi, S. (1997). Recent findings on subjective well-being. *Indian Journal of Clinical Psychology*.

Diestel, S., Wegge, J., & Schmidt, K. H. (2014). The impact of social context on the relationship between individual job satisfaction and absenteeism: The roles of different foci of job satisfaction and work-unit absenteeism. *Academy of Management Journal*. https://doi.org/10.5465/amj.2010.1087

Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, *2*(3), 222–235. https://doi.org/10.5502/ijw.v2i3.4

Donat, M., Peter, F., Dalbert, C., & Kamble, S. V. (2016). The Meaning of Students' Personal Belief in a Just World for Positive and Negative Aspects of School-Specific Well-Being. *Social Justice Research*, *29*(1), 73–102. https://doi.org/10.1007/s11211-015-0247-5

Duckworth, L., Steen, A. T., & Seligman, M. E. . (2005). Positive Psychology in Clinical Practice. *Annual Review of Clinical Psychology*, *1*(1), 629–651. https://doi.org/10.1146/annurev.clinpsy.1.102803.144154

Duquaine-Watson, J. M. (2017). Mothering by degrees: Single mothers and the pursuit of

postsecondary education. In *Mothering by Degrees: Single Mothers and the Pursuit of Postsecondary Education* (pp. 1–262). https://doi.org/10.1080/19496591.2018.1545658

El-Behadli, A. F., Sharp, C., Hughes, S. O., Obasi, E. M., & Nicklas, T. A. (2015). Maternal depression, stress and feeding styles: towards a framework for theory and research in child obesity. *The British Journal of Nutrition*. https://doi.org/10.1017/S000711451400333X

Elliott, S., Powell, R., & Brenton, J. (2015). Being a good mom: Low-income, black single mothers negotiate intensive mothering. *Journal of Family Issues*, *36*(3), 351–370. https://doi.org/10.1177/0192513X13490279

Ellis, J. L. (2017). Factor analysis and item analysis. *Boom Publication*, 1–157. https://www.applyingstatisticsinbehaviouralresearch.com/documenten/factor_analysis_and_item_analysis_version_11_.pdf

Essien, A. M., & Bassey, A. A. (2012). The social and religious challenges of single mothers in Nigeria. *American Journal of Social Issues & Humanities*, *2*(4), 240–251.

Farooq, R. (2016). Role of structural equation modeling in scale development. *Journal of Advances in Management Research*, *13*(1), 75–91. https://doi.org/10.1108/JAMR-05-2015-0037

Field, A. (2013). Discovering statistics using IBM SPSS statistics. In *Statistics* (Vol. 58).

Filho, D. B. F., Paranhos, R., Rocha, E. C. da, Batista, M., Silva Jr., J. A. da, Santos, M. L. W. D., & Marino, J. G. (2013). When is statistical significance not significant? *Brazilian Political Science Review*, *7*(1), 31–55. https://doi.org/10.1590/s1981-38212013000100002

Forsyth, Craig J.; Johnson, E. L. (1995). A sociological view of the never married. *International Journal of Sociology of the Family*, *25*(2), 91–104.

Freeman, A. L., & Dodson, L. (2014). Social network development among low-income single

mothers: Potential for bridging, bonding, and building. *Family Relations*, *63*(5), 589–601. https://doi.org/10.1111/fare.12088

Gardner, D. (1997). *Locus of control and self-directed learning as predictors of well-being in the elderly* [Edith Cowan University]. https://doi.org/10.1057/978-1-349-95943-3_324

George, G., Mudzingwa, T., & Horwood, C. (2020). The cost of the training and supervision of community health workers to improve exclusive breastfeeding amongst mothers in a cluster randomised controlled trial in South Africa. *BMC Health Services Research*, *20*(1), 1–8. https://doi.org/10.1186/s12913-020-4913-4

Ghani, F. B. A., & Hashim, H. B. (2013). Challenges and locus control among single mothers in Muar. *Journal of Emerging Trends in Educational Research and Policy Studies*, *4*(5), 760–765.

Ghani, F. B. A., Ibrahim, F. A., Aziz, A. A., & Mahfar, M. (2015). Relationship between the belief system and emotional well-being of single mothers. *Asian Social Science*, *11*(27), 28–42. https://doi.org/10.5539/ass.v11n27p28

Golash, D., & Turkulainen, T. (2018). *Challenges and resources of single mothers by choice in Helsinki, Finland*.

Golombok, S. (2000). Parenting : What really counts? In P. Reder (Ed.), *Infant and Child Development* (p. 124). Routledge. https://doi.org/10.1002/icd.232

Gongla, P. A., & Thompson, E. H. (1987). Single-parent families. *Handbook of Marriage and the Family, M. B. Sussman & S. K. Steinmetz(Eds.)*, 397–418.

Goodrum, N. M., Jones, D. J., Kincaid, C. Y., Cuellar, J., & Parent, J. M. (2012). *Youth Externalizing Problems in African American Single-Mother Families : A Culturally Relevant Model Youth Externalizing Problems in African American Single-Mother Families : A Culturally Relevant Model*. *May 2014*. https://doi.org/10.1037/a0029421

Green, G. A. (2012). *A comparative study of the psychological well-being of single and*

married mothers who work shifts in a call centre environment (Issue November).

Grob, A. (2000). Perceived control and subjective well-being across nations and across the Life Span. In E. Diener & E. M. Suh (Eds.), *Culture and Subjective Well-Being* (pp. 319–339). The MIT Press. https://doi.org/10.7551/mitpress/2242.003.0018

Gujjar, A. A., & Aijaz, R. (2014). A study to investigate the relationship between locus of control and academic achievement of students. *I -Manager's Journal on Educational Psychology*, *8*(1), 1–9.

Guski, R. (2001). Environmental stress and health. *International Encyclopedia of the Social & Behavioral Sciences*, 4667–4671.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2006). Multivariate Data Analysis (6th ed.). *Analysis*.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Multivariate Data Analysis. In *Pharmaceutical Quality by Design: A Practical Approach* (Seventh Ed). Pearson New International Edition.

Hakovirta, M., & Jokela, M. (2019). Contribution of child maintenance to lone mothers' income in five countries. *Journal of European Social Policy*, *29*(2). https://doi.org/10.1177/0958928717754295

Halpin, G., Harris, K., & Halpin, G. (1985). Teacher stress as related to locus of control, sex, and age. *Journal of Experimental Education*, *53*(3), 136–140. https://doi.org/10.1080/00220973.1985.10806374

Hardship, E. (1991). *Why single parenthood affects children*. 1989–1992.

Harkonen, J. (2018). Single-mother poverty: how much do educational differences in single motherhood matter? In R. Nieuwenhuis & L. C. Maldonado (Eds.), *The triple bind of single-parent families*. Policy Press at the University of Bristo.

Hashim, M., Hashimah, I., Azwan, A. A., & Noraida, E. (2015). *Stress, roles and*

responsibilities of single mothers in Malaysia. *3*(2003). https://doi.org/10.1051/shsconf/20151803003

Haugen, R., & Lund, T. (2002). Self-concept, attributional style and depression. *Educational Psychology*, *22*(3), 305–315. https://doi.org/10.1080/01443410220138539

Hechler, C., Beijers, R., Riksen-Walraven, M., & De Weerth, C. (2019). Studying Quality of Caregiving Behavior: The Roles of Infant, Mother, Father, and Culture. *Parenting*, *19*(1–2), 133–136. https://doi.org/10.1080/15295192.2019.1556021

Holborn, L., & Eddy, G. (2011). *First steps to healing the South African family*.

Howatt, W. A. (2012). *Roles of internal locus of control and self-efficacy on managing job stressors and Ryff's Six Scales of Psychological Well-Being*. http://search.proquest.com/docview/1033213457?accountid=35812%5Cnhttp://av4kc7fg4g.search.serialssolutions.com/?ctx_ver=Z39.88-2004&ctx_enc=info:ofi/enc:UTF-8&rfr_id=info:sid/ProQuest+Dissertations+%26+Theses+Full+Text&rft_val_fmt=info:ofi/fmt:kev:mtx:dis

Huang, C.-Y., & Weng, R.-H. (2017). Negative mentoring experience questionnaire design and testing. *Economic and Social Development*, *February*, 318–324.

Huta, V. (2015). An overview of hedonic and eudaimonic well-being concepts. In L. Reinecke & M. B. Oliver (Eds.), *Handbook of Media Use and Well-Being* (Issue November). Routledge. https://doi.org/10.4324/9781315714752

Jain, A. K., Giga, S. I., & Cooper, C. L. (2013). Stress, health and well-being: The mediating role of employee and organizational commitment. *International Journal of Environmental Research and Public Health*, *10*, 4907–4924. https://doi.org/10.3390/ijerph10104907

Jansen van Rensburg, C. (2017). *Single mothers and family formation in Suurbraak : A mixed methods study* (Issue March). Stellenbosch University.

Jiménez-Iglesias, A., García-Moya, I., & Moreno, C. (2017). Parent–child relationships and adolescents' life satisfaction across the first decade of the new millennium. *Family Relations*, *66*(3), 512–526. https://doi.org/10.1111/fare.12249

Johannesburg North. (n.d.). From Wikipedia, the Free Encyclopedia. https://en.wikipedia.org/wiki/Johannesburg_North

Jones, P. (2015). Review: Systemic corticosteroids reduce treatment failure but increase hyperglycemia in COPD exacerbations. *Annals of Internal Medicine*, *162*(6). https://doi.org/10.7326/ACPJC-2015-162-6-006

Joussemet, M., Koestner, R., Lekes, N., & Landry, R. (2005). A longitudinal study of the relationship of maternal autonomy support to children's adjustment and achievement in school. *Journal of Personality*. https://doi.org/10.1111/j.1467-6494.2005.00347.x

Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), Well-being: The foundations of hedonic psychology. In *New York: Russell Sage Foundation.* (pp. 3–25).

Karatas, Z., & Tagay, O. (2012). Self esteem, locus of control and multidimensional perfectionism as the predictors of subjective well being. *International Education Studies*, *5*(6), 131–137. https://doi.org/10.5539/ies.v5n6p131

Keller, A., Ford, L. R. H., & Meacham, J. A. (1978). Dimensions of self-concept in preschool children. *Developmental Psychology*, *14*(5). https://doi.org/10.1037/0012-1649.14.5.483

Kendig, S. M., & Bianchi, S. M. (2008). Single, cohabitating, and married mothers' time with children. *Journal of Marriage and Family*. https://doi.org/10.1111/j.1741-3737.2008.00562.x

Keyes, C., & Haidt, J. (2003). *Flourishing - Positive psychology and the life well-lived - Introduction: Human flourishing the study of that which makes life worthwhile*.

Khan, A. A., Saleem, M., & Shahid, R. (2012). Buffering role of locus of control on stress

among the college/ university teachers of Bahawalpur. *Pak. J. Commer. Soc. Sci.*, *6*(1), 158–167.

Khosravan, S., Salehi, S., Ahmadi, F., & Mansoorian, M. R. (2013). Social support: The most important need of young Iranian single-parent widows on their path to widowhood. *International Journal of Nursing Practice*, *19*(3), 274–280. https://doi.org/10.1111/ijn.12068

Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *Journal of Applied Psychology*, *83*(2), 139–149. https://doi.org/10.1037/0021-9010.83.2.139

Kotwal, N., & Prabhakar, B. (2009). Problems faced by single mothers. *J Soc Sci*, *21*(3), 197–204.

Kózka, A., & Przybyła-Basista, H. (2016). The relationships between perceived stress and psychological well-being among mothers and fathers of children with down syndrome. *New Educational Review*, *44*(2), 285–294. https://doi.org/10.15804/tner.2016.44.2.23

Kramer, K., Kramer, K. Z., Myhra, L. L., Zuiker, V. S., & Bauer, J. W. (2015). Across Three Decades : 1990 – 2010. *Gender Issues, September*, 1990–2010. https://doi.org/10.1007/s12147-015-9144-3

Krause, N. (2019). Assessing the relationships among stress, god-mediated control, and psychological distress/well-being: Does the level of education matter? *Journal of Social Psychology*, *159*(1), 2–14. https://doi.org/10.1080/00224545.2018.1431604

Krause, N., & Stryker, S. (1984). Stress and well-being: The buffering role of locus of control beliefs. *Social Science and Medicine*, *18*(9), 783–790. https://doi.org/10.1016/0277-9536(84)90105-9

Krauss, S. E. (2005). Research paradigms and meaning making : A Primer. *The Qualitative*

Report, *10*(4), 758–770.

Kulshrestha, U., & Sen, C. (2006). Subjective well being in relation to emotional intelligence and locus of control among executives. *Journal of the Indian Academy of Applied Psychology*, *32*(2), 93–98.

Landry, S. H. (2014). The role of parents in early childhood learning. *Encyclopedia on Early Childhood Development*, 1–6.

Lauinger, W. (2015). *A framework for understanding parental well-being*. *April*. https://doi.org/10.1007/s11406-015-9600-z

Lawal, A. M., & Idemudia, E. S. (2017). Examining maternal age, breastfeeding self-efficacy and health locus of control in psychological wellbeing of mothers. *Psychology, Health and Medicine*, *22*(10), 1230–1238. https://doi.org/10.1080/13548506.2017.1317824

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. https://doi.org/10.1017/S0033291700031652

Lefcourt, H. M. (2014). *Locus of control: Current trends in theory and research*.

Lekfuangfu, W. N., Powdthavee, N., Warrinnier, N., & Cornaglia, F. (2018). Locus of control and its intergenerational implications for early childhood skill formation. *Economic Journal*, *128*(608), 298–329. https://doi.org/10.1111/ecoj.12414

Leskosek, V. (2011). Historical perspective on the ideologies of motherhood and its impact on social work. *Social Work & Society*, *9*(2), 1–10.

Louw, G. J., & Viviers, A. (2010). An evaluation of a psychosocial stress and coping model in the police work context. *SA Journal of Industrial Psychology*, *36*(1), 1–11. https://doi.org/10.4102/sajip.v36i1.442

Lu, Y. C., Walker, R., Richard, P., & Younis, M. (2020). Inequalities in poverty and income between single mothers and fathers. *International Journal of Environmental Research and Public Health*, *17*(1). https://doi.org/10.3390/ijerph17010135

Lucas, N., Shipley, M., Mathews, R., Berry, H., Rodgers, B., & Davies, A. (n.d.). *Parent and child wellbeing and the influence of work and family arrangements : A three cohort study* (Issue 44).

Lumpkin, J. R. (1985). Validity of a Brief Locus of Control Scale for survey research. *Psychological Reports*, *57*, 655–659.

Madhusudanan, S., & Nalini, R. (2017). *Psychological well-being of working women* (Issue November).

Maldonado, L. C., & Nieuwenhuis, R. (2019). *Single parents in context*. *April*, 1–20. https://doi.org/10.1093/OBO/9780199756384-0220

Malek, M. D. A., Fahrudin, A., & Kamil, I. S. M. (2009). Occupational stress and psychological well-being in emergency services. *Asian Social Work and Policy Review*, *3*(3), 143–154. https://doi.org/10.1111/j.1753-1411.2009.00030.x

Malhotra, R. (2017). Locus of control and college students. *Indian Journal of Positive Psychology*, *8*(2), 231–236.

Maluleke, R. (2016). *Early childhood development in South Africa, 2016: Vol. Education*.

Mannis, V. S. (1999). Single mothers by choice. *Family Relations*, *48*(2), 121–128. https://doi.org/163.200.101.62

Mapara, J., & Thebe, S. (2015). *It has always been a man's world: The woman as other in the Shona and Ndebele proverb*. *2*(4), 198–214.

Marks, N., & Shah, H. (2004). A well-being manifesto for a flourishing society. *Journal of Public Mental Health*, *3*(4), 9–15. https://doi.org/10.1108/17465729200400023

Mbithi, J. N. (2019). Single Parenting in Kenya: Issues, challenges and solutions. *European Journal of Social Sciences Studies*, *4*(1), 84–91. https://doi.org/10.5281/zenodo.2551822

McKenzie, H., & McKay, F. H. (2018). Thinking outside the box: Strategies used by low-income single mothers to make ends meet. *Australian Journal of Social Issues*, *53*(3),

304–319. https://doi.org/10.1002/ajs4.48

McVicar, A., Ravalier, J. M., & Greenwood, C. (2014). Biology of stress revisited: Intracellular mechanisms and the conceptualization of stress. *Stress and Health*. https://doi.org/10.1002/smi.2508

Mkhize, N., & Msomi, R. (2016). African single mothers' experiences of work and career in South Africa. *Journal of Comparative Family Studies*, *47*(3), 323–342. https://doi.org/10.3138/jcfs.47.3.323

Moody, J. (2015). *A quantitative study of stress , locus of control and gender as predictors of coping with divorce* (Issue January).

Moore, E., & Govender, R. (2013). Marriage and cohabitation in South Africa: An enriching explanation? *Journal of Comparative Family Studies*, *44*(5), 623–639. https://doi.org/10.3138/jcfs.44.5.623

Moosa, F., Moonsamy, G., & Fridjhon, P. (1997). Identification patterns among black students at a predominantly white university. *South African Journal of Psychology*. https://doi.org/10.1177/008124639702700409

Morawetz, A., & Walker, G. (1984). Brief therapy with single-parent families. *The British Journal of Psychiatry*, *145*(4), 373. https://doi.org/10.4324/9781315803913

Morosow, K., & Jalovaara, M. (2019). Disadvantaging single parents? Effects of long family leaves on single and partnered mothers ' labour market outcomes in Finland. *Stockholm Research Reports in Demography*, *20*.

Morrison, V., & Bennett, P. (2012). An introduction to Health Psychology. In *An Introduction to Health Psychology* (2nd ed.). Pearson Education Limited.

Moss, D. (2017). The frustrated and helpless healer: Pathways approaches to posttraumatic stress disorders. *International Journal of Clinical and Experimental Hypnosis*, *65*(3), 336–352. https://doi.org/10.1080/00207144.2017.1314744

Mugove, K. (2017). Challenges encountered by single parents in the learning and development of children. *International Journal of Scientific and Research Publications*, *7*(6), 178–186.

Munzara, M. (2014). *Exploring the quality of life of single mothers: The case of Marondera Town, Zimbabwe* (Issue June). University of Fort Hare.

Mwaba, K., & Naidoo, P. (2005). Sexual practices, attitudes toward premarital sex and condom use among a sample of South African university students. *Social Behavior and Personality*, *33*(7), 651–656. https://doi.org/10.2224/sbp.2005.33.7.651

Myrskylä, M., & Margolis, R. (2013). *Parental benefits improve parental well-being : Evidence from a 2007 policy change in Germany*.

Nafeesa, Novita, E., & Siregar, E. S. (2019). A cases relationship between internal locus control and vocational maturity among students in Medan, Indonesia. *Journal of Social Science Studies*, *6*(2), 43–49. https://doi.org/10.5296/jsss.v6i2.14426

Natvig, G. K., Albrektsen, G., & Qvarnstr, U. (2003). *Educational Psychology : An International Journal of Experimental Methods of Teaching and Class Participation in Relation to Perceived Social Support and Stress : Modifiable factors for improving health and wellbeing among students*.

Ng, T. W. H., Sorensen, K. L., & Eby, L. T. (2006). Locus of control at work: A meta-analysis. *Journal of Organizational Behavior*, *27*(8), 1057–1087. https://doi.org/10.1002/job.416

Ngwenya, C. (2015). *Female poverty in Diepsloot in South Africa*. University of South Africa.

Ntoimo, L. F. C., & Odimegwu, C. O. (2014). Health effects of single motherhood on children in sub-Saharan Africa: A cross-sectional study. *BMC Public Health, 14*(1), 1–13. https://doi.org/10.1186/1471-2458-14-1145

O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality and Quantity*, *41*(5), 673–690. https://doi.org/10.1007/s11135-006-9018-6

Oh Nam, K. (2005). *A study on factors influencing psychological well-being of single mothers: Focusing on family and social variables*. Daebul University.

Orcan, F. (2018). Exploratory and Confirmatory Factor Analysis: Which one to use first? *Journal of Measurement and Evaluation in Education and Psychology*, *9*(February), 414–421. https://doi.org/10.21031/epod.394323

Ozturk, M. S. (2014). *Sosyoekonomi Investigation of Economic Activities of Single Parent Families. January*. https://doi.org/10.17233/se.13693

Parkes, A., Sweeting, H., & Wight, D. (2015). Parenting stress and parent support among mothers with high and low education. *Journal of Family Psychology*, *29*(6), 907–918. https://doi.org/10.1037/fam0000129

Paschall, K. W., & Mastergeorge, A. M. (2018). A longitudinal, person-centered analysis of early head start mothers` parenting. *Infant Mental Health Journal*. https://doi.org/10.1002/imhj.21686

Patil, D. A., Dhavale, D. H., & Umar, D. S. A. (2019). To study influence of various stressful life events and coping strategies on the course of psoriasis and psychiatric comorbidity among the patients of psoriasis. *Journal of Medical Science And Clinical Research*, *7*(8), 631–639. https://doi.org/10.18535/jmscr/v7i8.105

Piatek, R., & Pinger, P. (2012). Maintaining (Locus of) Control? Assessing the impact of locus of control on education decisions and wages. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1739746

Pilane, M. V. (2011). *Perceived stress, perceived social support and general well- being among university of Kwazulu-natal first-year students* (Issue November).

PISA. (2015). PISA 2015 Results (Volume III): Students' Well-Being. In *Oecd*.

https://doi.org/10.1787/9789264266490-en

Pollard, E. L., & Lee, P. D. (2003). Child well-being: a systematic review of the literature. *Social Indicators Research*, *61*(April), 59–78.

Ponnam, A., Sahoo, D., Sarkar, A., & Mohapatra, S. N. (2014). An exploratory study of factors affecting credit card brand and category selection in India. *Journal of Financial Services Marketing*, *19*(3), 221–233. https://doi.org/10.1057/fsm.2014.17

Poormahmood, A., Moayedi, F., & Haji Alizadeh, K. (2017). Relationships between psychological well-being, happiness and perceived occupational stress among primary school teachers. *Archives of Hellenic Medicine*, *34*(4), 504–510.

Prakash, A. P., Srimathi, V., & Jerlin, J. E. (2015). Issues/problems pertaining to single parents- A Mathematical Fuzzy Analysis. *International Journal of Computer Applications*, *120*(24), 1–4. https://doi.org/10.5120/21405-3467

Rahim, A. M. (1995). A comparative study of entrepreneurs and managers: Stress, burnout, locus of control, and social support. *Journal of Health and Human Services Administration*, *18*(1), 68–89.

Rahim, A. M. (1997). Relationships of stress, locus of control, and social support to psychiatric symptoms and propensity to leave a job: A field study with managers. *Journal of Business and Psychology*, *12*(2), 159–174. https://doi.org/10.1023/A:1025018101302

Rashid, I., & Talib, P. (2013). Modelling a relationship between role stress & locus of control. *Indian Journal of Industrial Relations*, *48*(4), 726–738.

Raymo, J. M., & Zhou, Y. (2012). Living arrangements and the well-being of single mothers in Japan. *Population Research and Policy Review*, *31*(5), 727–749. https://doi.org/10.1007/sl 1113-012-9247-4

Reknes, I., Visockaite, G., Liefooghe, A., & Lovakov, A. (2019). *Locus of control moderates*

the relationship between exposure to bullying behaviors and psychological strain. *10*(June), 1–12. https://doi.org/10.3389/fpsyg.2019.01323

Reza, M., Mobarakeh, V., Juhari, R., Yaacob, S. N., & Redzuan, M. (2015). *Locus of control and psychological well-being among Iranian adolescent migrants in Kuala-Lumpur , Malaysia*. 2013–2016.

Richter, N., Bondü, R., Spiess, C. K., Wagner, G. G., & Trommsdorff, G. (2018). Relations among maternal life satisfaction, shared activities, and child well-being. *Frontiers in Psychology*, *9*(MAY). https://doi.org/10.3389/fpsyg.2018.00739

Rotter, J. B. (1954). Social learning and clinical psychology. In N. J. Englewood Cliffs (Ed.), *Social learning and clinical psychology.* Prentice Hall. https://doi.org/10.1037/10788-000

Rotter, J. B. (1966a). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1–28.

Rotter, J. B. (1966b). Rotter's Internal-External Control Scale. *Psychological Monographs: General and Applied*, *80*(1), 1–28. https://doi.org/10.1037/t01671-000

Rousou, E., Kouta, C., & Middleton, N. (2016). Association of social support and socio-demographic characteristics with poor self-rated health and depressive symptomatology among single mothers in Cyprus: A descriptive cross-sectional study. *BMC Nursing*, *15*(1). https://doi.org/10.1186/s12912-016-0134-x

Ryff, C. D. (1989). Happiness is everything, or is it? Exploration on the meaning of psychological well-being. In *Journal of Personality and Social Psychology* (Vol. 57, pp. 1069–1081). http://www.rci.rutgers.edu/~jmohlman/handouts/personality/articles_personality_seminar/happiness.pdf

Ryff, C. D., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal*

of Personality and Social Psychology, *69*(4), 719–727.

Saipanish, R., Lotrakul, M., & Sumrithe, S. (2009). Reliability and validity of the Thai version of the WHO-Five Well-Being Index in primary care patients. *Psychiatry and Clinical Neurosciences*, *63*(2), 141–146. https://doi.org/10.1111/j.1440-1819.2009.01933.x

Saka, S. A., Kamal, O., & Alabi, O. T. (2018). Influence of perceived occupational stress on psychological well-being of Federal Road Safety Personnel in Nigeria. *Journal of Clinical and Medical*, *2*(1), 2–7.

Sampson, R. J. (2017). Family management and child development: Insights from social disorganization theory. In J. Mc Cord (Ed.), *Facts, Frameworks, and Forecasts* (p. 32). https://doi.org/10.4324/9780203792452

Sanderson, C. A. (2004). Health Psychology. In S. Edition (Ed.), *Australasian Psychiatry*. https://doi.org/10.1017/CBO9781107415324.004

Sanjuan, P. (2014). *Affect Balance as Mediating Variable Between Effective Psychological Functioning and Satisfaction with Life Affect Balance as Mediating Variable Between Effective*. *June 2011*. https://doi.org/10.1007/s10902-010-9199-5

Schiller, A., Woltering, R. O., & Sebastian, S. (2020). Is the flow-performance relationship really convex? The impact of data treatment and model specification. *Journal of Economics and Finance*, *44*(2), 300–320. https://doi.org/10.1007/s12197-019-09489-1

Schmidt, A. F., & Finan, C. (2018). Linear regression and the normality assumption. *Journal of Clinical Epidemiology*, *98*, 146–151. https://doi.org/10.1016/j.jclinepi.2017.12.006

Schreuder, A. M. G., & Coetzee, M. (2011). *Careers : An organisational perspective* (4th ed.). Juta, Capetown South Africa.

Schuiling, K. D., & Low, L. K. (2006). Women's growth and development across the life span. In *Women's gynecologic health* (pp. 21–37).

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14. https://doi.org/10.1037/0003-066X.55.1.5

Seligman, M. E. P., & Garber, J. (1980). *Human helplessness : Theory and applications*. New York ; London : Academic Press, 1980.

Selye, H. (1950). Stress and the general adaptation syndrome. *British Medical Journal*, *3*(4), 1383–1392. https://doi.org/10.1159/000227975

Selye, H. (1952). Allergy and the general adaptation syndrome. *International Archives of Allergy and Immunology*, *3*(4). https://doi.org/10.1159/000227975

Selye, H. (1956). *The stress of life*.

Sheridan, C. L., & Radmacher, S. A. (1992). *Health Psychology: Challenging the Biomedical Model*. John Wiley & Sons.

Shukla, P., & Rishi, P. (2018). Health locus of control, psychosocial/spiritual well-being and death anxiety among advanced-stage cancer patients. *Psychological Studies*, *63*(2), 200–207. https://doi.org/10.1007/s12646-017-0385-y

Simms, J. R., & Johnson, P. J. (2012). Knowledge: A measurable universal phenomenon of life. *Systems Research and Behavioral Science*. https://doi.org/10.1002/sres.2114

Simpson, R. (2010). The shadow of marriage: Singleness in England 1914–1960. *Feminist Review*. https://doi.org/10.1057/fr.2010.28

Sinclair, N. (2011). *Chapter 8: Multicollinearity* (pp. 1–10).

Singh, T. K., & Choudhri, N. (2014). Early adulthood: The role of locus of control, meaning of life and subjective well being. *Journal of Psychosocial Research*, *9*(1), 131–139.

Siu, O., Spector, P. E., Cooper, C. L., & Lu, L. (2002). *Managerial stress in Greater China : The direct and moderator effects of coping*. *51*(4), 608–632.

Slade, M. (2010). Mental illness and well-being: The central importance of positive psychology and recovery approaches. *BMC Health Services Research*, *10*.

https://doi.org/10.1186/1472-6963-10-26

Snyder, C. R. E., & Lopez, S. J. E. (2002). Handbook of Positive Psychology (Oxford Library of Psychology). In *Handbook of Positive Psychology (Oxford Library of Psychology)*.

Sok, S. R., & Shin, S. H. (2010). Comparison of the factors influencing children's self-esteem between two parent families and single parent families. *Journal of Korean Academy of Nursing*. https://doi.org/10.4040/jkan.2010.40.3.367

Sonnentag, S. (2018). The recovery paradox: Portraying the complex interplay between job stressors, lack of recovery, and poor well-being. *Research in Organizational Behavior, 38*, 169–185. https://doi.org/10.1016/j.riob.2018.11.002

Sonubi, O. A. (2010). *Managing problems and pressures facing single mothers in management and professional occupations in South African organisations*. University of Pretoria.

Southgate, H. M. A. (1998). *The effects of supplementary multivitamins on stress*.

Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., Büssing, A., Dewe, P., Hart, P., Lu, L., Miller, K., Renault De Moraes, L. F., Ostrognay, G. M., Pagon, M., Pitariu, H., Poelmans, S., Radhakrishnan, P., Russinova, V., Salamatov, V., … Yu, S. (2001). Do national levels of individualism and internal locus of control relate to well-being: An ecological level international study. *Journal of Organizational Behavior*, *22*(8), 815–832. https://doi.org/10.1002/job.118

Stack, R. J., & Meredith, A. (2018). The impact of financial hardship on single parents: An exploration of the journey from social distress to seeking help. *Journal of Family and Economic Issues*, *39*(2), 233–242. https://doi.org/10.1007/s10834-017-9551-6

Statistics South Africa. (2018). Mbalo Brief: The missing piece of the puzzle. *Statistics South Africa*.

Statistics South Africa. (2019). *General Household Survey 2018* (Issue May).

Steimer, T. (2002). The biology of fear- and anxiety-related behaviors. *Dialogues in Clinical Neuroscience*, *4*(3), 231–249.

Stephen, E. N., & Udisi, L. (2016). Single-parent families and their impact on children: A study of Amassoma community in Bayelsa State. *European Journal of Research in Social Sciences*, *4*(9), 1–24.

Stocks, A., April, K., & Lynton, N. (2012). Locus of control and subjective well-being – a cross-cultural study. *Problems and Perspectives in Management*, *10*(1), 17–25.

Strazdins, L., Lucas, N., Mathews, B., & Berry, H. (2011). *Parent and child wellbeing and the influence of work and family arrangements: A three cohort study* (Issue 44). http://www.fahcsia.gov.au/about/publicationsarticles/research/socialpolicy/Documents/sprp44/sprp_44.pdf

Strizhitskaya, O., Petrash, M., Savenysheva, S., Murtazina, I., & Golovey, L. (2018). Perceived stress and psychological well-being: The role of the emotional stability. *7th IcCSBs 2018 The Annual International Conference on Cognitive - Social, and Behavioural Sciences*, 156–162.

Suleman, Q., Hussain, I., Shehzad, S., Syed, M. A., & Raja, S. A. (2018). Relationship between perceived occupational stress and psychological well-being among secondary school heads in Khyber Pakhtunkhwa, Pakistan. *PLoS ONE*, *13*(12), 1–22. https://doi.org/10.1371/journal.pone.0208143

Sulkers, E., Tissing, W. J. E., Brinksma, A., Roodbol, P. F., Kamps, W. A., Stewart, R. E., Sanderman, R., & Fleer, J. (2015). Providing care to a child with cancer: A longitudinal study on the course, predictors, and impact of caregiving stress during the first year after diagnosis. *Psycho-Oncology*. https://doi.org/10.1002/pon.3652

Sumra, M. K., & Schillaci, M. A. (2015). Stress and the multiple-role woman: Taking a

closer look at the “superwoman.” *PLoS ONE*, *10*(3), 1–24. https://doi.org/10.1371/journal.pone.0120952

Syrén, S. M., Kokko, K., Pulkkinen, L., & Pehkonen, J. (2020). Income and mental well-being: Personality traits as moderators. *Journal of Happiness Studies*, *21*(2), 547–571. https://doi.org/10.1007/s10902-019-00076-z

Taber, K. S. (2018). The use of Cronbach ’ s Alpha when developing and reporting research instruments in Science Education. *Res Sci Edu*, *48*, 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Taylor, Z. E., & Conger, R. D. (2017). Promoting strengths and resilience in Single-Mother families. *Child Development*, *88*(2), 350–358. https://doi.org/10.1111/cdev.12741

Taylor, Z. E., Conger, R. D., Robins, R. W., & Widaman, K. F. (2015). Parenting practices and perceived social support: Longitudinal relations with the social competence of Mexican-origin children. *Journal of Latina/o Psychology*, *3*(4), 193–208. https://doi.org/10.1037/lat0000038

Teresa, M., Ramírez, G., & Hernández, R. L. (2007). Factor structure of the Perceived Stress Scale (PSS) in a sample from Mexico. *The Spanish Journal of Psychology*, *10*(1), 199–206.

Terre Blanche, M., Durrheim, K., & Painter, D. (2006). *Research in Practice: Applied methods for the social sciences*. University of Cape Town Press.

Thomas, C. L. (2015). *Locus of control and parenting style in single and two-parent households* (Issue March). https://search.proquest.com/docview/1728124861?fromunauthdoc=true

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, *5*, 147–158. https://doi.org/10.17348/era.5.0.147-158

Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 well-being

index: A systematic review of the literature. *Psychotherapy and Psychosomatics*, *84*(3), 167–176. https://doi.org/10.1159/000376585

Tov, W. (2018). Well-being concepts and components. *Handbook of Well-Being*, 15. https://doi.org/nobascholar.com

Tweed, R. (2016). *Handbook of Eudaimonic Well-Being*. *October*. https://doi.org/10.1007/978-3-319-42445-3

Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. *Procedia Economics and Finance*, *20*(15), 679–686. https://doi.org/10.1016/s2212-5671(15)00123-9

Üzümçeker, E. (2016). The limits of the use of locus of control in industrial psychology: A critical evaluation. *Psychological Thought*, *9*(2), 149–158. https://doi.org/10.5964/psyct.v9i2.186

van Dyk, A., Tlou, E., & van Dyk, P. (2017). *HIV and AIDS Education, care and counselling: A multicultural approach* (6th ed.). Pearson South Africa (Pty) Ltd.

van Griethuijsen, R. A. L. F., van Eijck, M. W., Haste, H., den Brok, P. J., Skinner, N. C., Mansour, N., Gencer, A. S., & BouJaoude, S. (2015). Global patterns in students' views of science and interest in science. *Research in Science Education*, *45*(4), 581–603. https://doi.org/10.1007/s11165-014-9438-6

Vazi, M. L. M., Ruiter, R. A. C., Van den Borne, B., Martin, G., Dumont, K., & Reddy, P. S. (2013). The relationship between wellbeing indicators and teacher psychological stress in Eastern Cape public schools in South Africa. *SA Journal of Industrial Psychology*, *39*(1), 1–10. https://doi.org/10.4102/sajip.v39i1.1042

Vermaas, E. (2010). *Social support as a moderator between stress and psychological well-being* [North-West University]. https://doi.org/10.1017/CBO9781107415324.004

Viljoen, A., Kruger, M., & Saayman, M. (2017). The 3-S typology of South African culinary

festival visitors. *International Journal of Contemporary Hospitality Management*, *29*(6), 1560–1579. https://doi.org/10.1108/IJCHM-09-2015-0464

Vrshek-Schallhorn, S., Stroud, C. B., Mineka, S., Hammen, C., Zinbarg, R. E., Wolitzky-Taylor, K., & Craske, M. G. (2015). Chronic and episodic interpersonal stress as statistically unique predictors of depression in two samples of emerging adults. *Journal of Abnormal Psychology*. https://doi.org/10.1037/abn0000088

Vyskocil, G. M. (2018). *Challenges needs and experiences of single parent student mothers in higher education*. http://scholarworks.lib.csusb.edu/etdhttp://scholarworks.lib.csusb.edu/etd/612

Waller, M. R., & Jones, M. R. (2014). Who is the residential parent? Understanding discrepancies in unmarried parents' reports. *Journal of Marriage and Family*. https://doi.org/10.1111/jomf.12087

Wang, L. (2017). *Internal-External Locus of Control Scale*. *January*. https://doi.org/10.1007/978-3-319-28099-8

Wang, R. A. H., Nelson-Coffey, S. K., Layous, K., Bao, K. J., Davis, O. S. P., & Haworth, C. M. A. (2017). Moderators of wellbeing interventions: Why do some people respond more positively than others? *PLoS ONE*, *12*(11), 1–19. https://doi.org/10.1371/journal.pone.0187601

Wang, X., & Li, Y. (2017). How trust and need satisfaction motivate producing user-generated content. *Journal of Computer Information Systems*, *57*(1), 49–57. https://doi.org/10.1080/08874417.2016.1181493

Wang, Z., Liu, H., Yu, H., Wu, Y., Chang, S., & Wang, L. (2017). Associations between occupational stress , burnout and well-being among manufacturing workers : mediating roles of psychological capital and self-esteem. *BMC Psychiatry*, *17*(364), 1–10. https://doi.org/10.1186/s12888-017-1533-6

Weinraub, M., & Kaufman, R. (2018). *Single parenthood* (pp. 259–298).

Weintraub, M. J., de Mamani, A. W., & Tawfik, S. H. (2015). The interplay among locus of control, sub-clinical psychotic symptoms and psychological Well-Being in whites and ethnic minorities. *Interamerican Journal of Psychology*, *49*(3), 413–424. https://doi.org/10.30849/rip/ijp.v49i3.45

Weitoft, G. R., Hjern, A., Haglund, B., & Rosén, M. (2003). *Mortality , severe morbidity , and injury in children living with single parents in Sweden : a population-based study*. *361*, 289–295.

Weldegabreal, R. (2014). A qualitative study on single mothers' experince of raising their dependent children: a case in Lideta Sub City of Addis Ababa. *Master Social Work Deparment Addis Ababa Ethiopia*, 1–68. https://doi.org/10.1017/CBO9781107415324.004

Wersebe, H., Lieb, R., Meyer, A. H., Hofer, P., & Gloster, A. T. (2018a). The link between stress, well-being, and psychological flexibility during an Acceptance and Commitment Therapy self-help intervention. *International Journal of Clinical and Health Psychology*, *18*(1), 60–68. https://doi.org/10.1016/j.ijchp.2017.09.002

Wersebe, H., Lieb, R., Meyer, A. H., Hofer, P., & Gloster, A. T. (2018b). The link between stress, well-being, and psychological flexibility during an Acceptance and Commitment Therapy self-help intervention. *International Journal of Clinical and Health Psychology*, *18*(1), 60–68. https://doi.org/10.1016/j.ijchp.2017.09.002

Wiegner, L., Hange, D., Björkelund, C., & Ahlborg, G. (2015). Prevalence of perceived stress and associations to symptoms of exhaustion, depression and anxiety in a working age population seeking primary care - An observational study. *BMC Family Practice*, *16*(1). https://doi.org/10.1186/s12875-015-0252-7

Wijk, C. H. Van. (2013). The relationship between locus of control and the South African

national political environment. *Psychology*, *4*(12), 937–939.

Wike, H. (2015). *Examining the relationship between physical activity psychological well-being and stress in a college population*. 94.

Williams, N. (2016). *The relationship between stress, coping strategies, and social support among single mothers*. Walden University.

Wissing, M. P., Wissing, J. A. B., du Toit, M. M., & Temane, Q. M. (2006). Pattens of psychological well-being and satisfaction with life in cultural context. In A. Delle Fave (Ed.), *Dimensions of well-being: Research and intervention* (pp. 14–33). Milano: Franco Angeli.

Wright, M., Creed, P., & Zimmer-Gembeck, M. J. (2010). The development and initial validation of a brief daily hassles scale suitable for use with adolescents. *European Journal of Psychological Assessment*, *26*(3), 220–226. https://doi.org/10.1027/1015-5759/a000029

Wu, F., Gong, Q., & Dai, Y. (2017). Study on a Christian Chinese sample: sense of self-worth, well-being and locus of control. *Mental Health, Religion and Culture*, *20*(3), 239–245. https://doi.org/10.1080/13674676.2017.1338680

Xia, Y., & Ma, Z. (2020a). Social integration, perceived stress, locus of control, and psychological wellbeing among chinese emerging adult migrants: A conditional process analysis. *Journal of Affective Disorders*, *267*(January), 9–16. https://doi.org/10.1016/j.jad.2020.02.016

Xia, Y., & Ma, Z. (2020b). Social integration, perceived stress, locus of control, and psychological wellbeing among chinese emerging adult migrants: A conditional process analysis. *Journal of Affective Disorders*, *267*(February), 9–16. https://doi.org/10.1016/j.jad.2020.02.016

Yaribeygi, H., Panahi, Y., Sahraei, H., Johnston, T. P., & Sahebkar, A. (2017). The impact of

stress on body function: A review. *EXCLI Journal*, *16*, 1057–1072. https://doi.org/10.17179/excli2017-480

Ye, Y., & Lin, L. (2015). Examining relations between locus of control, loneliness, subjective well-being, and preference for online social interaction. *Psychological Reports*, *116*(1), 164–175. https://doi.org/10.2466/07.09.PR0.116k14w3

Young, M. Y. (2001). Moderators of stress in Salvadoran refugees: The role of social and personal resources. *International Migration Review*, *35*(3), 840–869. https://doi.org/0198-9183/01/3503.0135

Yunus, J. binti M., & Mahajar, A. J. bin. (2011). Stress and psychological well-being of government officers in Malaysia. *The Journal of Human Resource and Adult Learning*, *7*(2), 40–50.

Zagel, H., & Hübgen, S. (2018). A life-course approach to single mothers' economic wellbeing in different welfare states. In *The triple bind of single-parent families: Resources, employment and policies to improve wellbeing* (pp. 171–193). https://doi.org/10.2307/j.ctt2204rvq.14

Zarbova, B., & Karabeliova, S. (2018a). *Stress and well-being*. *January*.

Zarbova, B., & Karabeliova, S. (2018b). *Stress and well-being* (Issue January).

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, *53*(1), 107–128. https://doi.org/10.5465/amj.2010.48037118

Ziemkiewicz, C., Crouser, R. J., Yauilla, A. R., Su, S. L., Ribarsky, W., & Chang, R. (2011). How locus of control influences compatibility with visualization style. *VAST 2011 - IEEE Conference on Visual Analytics Science and Technology 2011, Proceedings*. https://doi.org/10.1109/VAST.2011.6102445

Appendices]

Appendix 1: Scales

STUDY INFORMATION DOCUMENT

Study Reference Number: 2019-CHS-Depart-46332421

Study title: The impact of stress and locus of control on the well-being of single mothers living in the Northern Suburbs of Johannesburg.

INFORMATION SHEET AND CONSENT FORM

Hello, my name is Abigail Sesa Muchabaiwa. I am conducting research for the purpose of completing my Masters in Arts (Research Consultation) at the University of South Africa.

What I am doing: I am conducting research on the impact of stress and locus of control on the well-being of single mothers in the Northern Suburbs of Johannesburg.

Your participation: I hereby request that you complete a survey of about 17 questions which will take approximately 10 minutes to complete. Please understand that your **participation is voluntary and confidential** and you are not being forced to take part in this study. While completing the survey, you can opt out whenever you feel that you do not want to continue, and your data will not be used. However, once you submit your data you will not be able to withdraw.

Risks/discomforts: At the present time, I do not see any risks in your participation. However, should the study evoke discomfort or psychological issues you can contact the local care center, Ferngrove Care Center at 083 397 0050 / ferncare@mweb.co.za a local support center.

Benefits: There are no immediate benefits to you from participating in this study. However, the study will assist communities in better understanding the challenges single mothers face and hence they will look for ways to support them. If you would like to receive feedback on

the study, I can send you the results of the study when it is completed sometime after May 2020.

Contact details: You can contact me at 0836214483 or email aswitcho@gmail.com.

Ethics This study has been approved by the College of Human Sciences Research Ethics Review Committee of the University of South Africa. A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research. If you have any concern over the way the study is being conducted, please contact the Ethics Chair Prof I. Ferns at 012 429 8210 or email fernsi@unisa.ac.za or my study Supervisor Dr H.C Erasmus at 012 429 2823 or email erasmhc@unisa.ac.za.

Do you want to take part in the survey?

Yes, I consent	
No, I do not consent	

Questionnaire 1: Biographical information

Instructions:

Please enter answer or place a cross (X) in the appropriate box.

Please ensure that you answer all questions.

Start with informed consent. If they do not select YES the survey will close.

Q1. Are you a single mother?		
Yes	1	CONTINUE
No	2	CLOSE
Please write the name of your suburb……..		
Q2. Do you have children under the age of 6 years?		
Yes	1	CONTINUE
No	2	
Q3. Do you stay with your child/ children under the age of 6 years?		
Yes	1	CONTINUE
No	2	CLOSE
Q4. How many children under the age of 6 years do you stay with? ……		
Q5. Do you stay with anyone else, other than your children?		
Yes	1	CONTINUE
No	2	CONTINUE
Q6. Where are your children when you are at work?		
At a day care centre	1	
With a maid	2	
With relatives	3	
With the neighbour	3	
Other, Specify……...	4	
Q7. What is your working status?		
Work full-time	1	
Work part-time	2	
Unemployed	3	CLOSE
Other	4	
Q8. How old are you in years……?		

Q9. To which racial group do you belong?		
Black	1	
White	2	
Coloured	3	
Indian	4	
Other, Please Specify	5	
Q10. What is your highest attained level of education?		
No education	1	
Matric	2	
Diploma	3	
Degree	4	
Post graduate degree	5	
Other, Specify	…….	
Q11. In which of the following income groups does your income fall into?		
Up to R5000	1	
R5001- R10 000	2	
R 10 001 – R15 000	3	
R15 001 – R20 000	4	
>R20 000	5	

Questionnaire 2: Perceived Stress Scale (PSS)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

0 = Never
1 = Almost Never
2 = Sometimes
3 = Fairly Often
4 = Very Often

1.In the last month, how often have you been upset because of something that happened unexpectedly?

0	1	2	3	4

2.In the last month, how often have you felt that you were unable to control the important things in your life?

0	1	2	3	4

3.In the last month, how often have you felt nervous and "stressed"?

0	1	2	3	4

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

0	1	2	3	4

5. In the last month, how often have you felt that things were going your way?

0	1	2	3	4

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

0	1	2	3	4

7. In the last month, how often have you been able to control irritations in your life?

0	1	2	3	4

8. In the last month, how often have you felt that you were on top of things?

0	1	2	3	4

9. In the last month, how often have you been angered because of things that were outside of your control?

0	1	2	3	4

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0	1	2	3	4

Questionnaire 3: The Brief Locus of Control Scale

How do you feel about each of the following statements? Check the answer that applies best for you.

1 = strongly disagree

2 = disagree

3 =neither agree nor disagree

4 = agree

5 =strongly agree

1.When I make plans, I am almost certain that I can make them work.

1	2	3	4	5

2.Getting people to do the right things depends upon ability; luck has nothing to do with it.

1	2	3	4	5

3.What happens to me is my own doing.

1	2	3	4	5

4.Many of the unhappy things in people's lives are partly due to bad luck.

1	2	3	4	5

5. Getting a good job depends mainly on being in the right place at the right time.

1	2	3	4	5

6. Many times I feel that I have little influence over the things that happen to me.

1		2	3	4	5

Questionnaire 4: WHO (five) Well-Being Index

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks.

0= At no time.

1= Some of the time.

2= Less than half of the time.

3= More than half of the time.

4= Most of the time.

5= All of the time.

1.I have felt cheerful and in good spirits.

0	1	2	3	4	5

2.I have felt calm and relaxed.

0	1	2	3	4	5

3.I have felt active and vigorous.

0	1	23	3	4	5

4.I woke up feeling fresh and rested.

0	1	2	3	4	5

5. My daily life has been filled with things that interest me.

0	1	2	3	4	5

Thank you for taking part

Appendix 2: Poster

CALL FOR PARTICIPANTS: **Single Mothers This Is for You**

A study is being conducted which aims to investigate how single mothers are coping with their everyday lives.

Should you wish to participate you must be a single mother and living in the northern suburbs of Johannesburg, be living with your children that are 6years old and below.

To participate, please contact Abigail Muchabaiwa at **0836214483** or aswitcho@gmail.com or follow the link below.