STRESS, COPING AND RESILIENCE IN A SAMPLE OF
ZIMBABWEAN MIGRANTS LIVING IN PINETOWN, SOUTH AFRICA

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
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Declaration

I declare that this is my original work, it has not been submitted before for any other degree at any university. All references from previous works have been acknowledged.

__________________________________    ______________
Mayana Hilder Makiwa                                          Date
Dedication

I wish to dedicate this dissertation to my beloved husband Hamadziripi Makiwa. His support for my every endeavour sustains me in everything I do.
Acknowledgements

I wish to express gratitude and appreciation to the following:

To the Most High God, my Lord and saviour Jesus Christ, thank you for giving me strength to endure and the wisdom to succeed. May all glory be to your name.

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Abstract

This study examined the levels of stress, resilience and coping strategies in a sample of 120 Zimbabwean migrants residing in the Pinetown area. Participants completed a demographic questionnaire and three instruments: the Perceived Stress Scale (PSS-10), the Connor-Davidson Resilience Scale (CD-RISC), and the Brief Coping Orientation for Problems Experienced (COPE) inventory. The results showed high levels of perceived helplessness and low levels of perceived self-efficacy on the Perceived Stress Scale 10. Competence and spirituality were the most endorsed attributes of resilience. Religion and planning were the most frequently used coping strategies. Religiosity had a significantly positive association with emotion-focused coping and resilience. Stress was negatively related to resilience. The results suggest that health promotion programmes for migrants should take into consideration the importance of religious/spiritual intervention and problem-solving skills to reduce stress effectively.
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Chapter One: Introduction

Migration is the movement of people across cultural and geographical boundaries to stay permanently or semi-permanently in the new area (Ratha, Eigen-Zucchi & Plaza, 2016). Migration in this context is the physical relocation from one nation to another. It is viewed as a process rather than an isolated event (Crush, Chikanda & Tawodzera, 2015; Ornelas & Perreira, 2011). The United Nations (2013) reported that a total number of 165 countries have received large numbers of migrants in the past two decades accelerating the growth in migrants globally to about 4.6 million annually and approximately 232 million by 2013. Ratha et al (2016) noted that the United States of America received the highest number of migrants in 2013. Approximately 30.6 million Africans were not living in countries of their birth and approximately 2.2 million of them were recognised as refugees who were displaced mainly by wars, drought and natural disasters (UNHCR, 2010).

Following the introduction of the new Immigration Act (Act 13) in 2004 the South African government saw the inflow of skilled migrants as a tool for their economic growth (Ratha & Shaw, 2006). Due to economic challenges, migration increasingly became a survival strategy for the majority of Zimbabweans (Chinomora & Madziriri, 2015; Idemudia, Williams, Madu & Wyatt, 2013; Scoones, Marongwe, Mavedzenge et al., 2011; Zinyama, 1990). Unemployment continues to be the main reason for migration of economically active Zimbabweans to South Africa (Makina, 2013). The main forms of migration that have increased over the past two decades are irregular and circular migration of the poor as well as skilled Zimbabweans. The nature of their migration impedes the gathering of reliable estimates on migration flows (Crush & Tevera, 2010). However, roughly 1.5 million Zimbabweans were reported to have migrated to South Africa by 2007 (Ratha & Shaw, 2006).
and nearly 3 million Zimbabweans were reported to be living in South Africa by 2013 (Makina, 2013). After having issued more than 245 thousand migrants with special permits, this dispensation was discontinued leaving many migrants undocumented (Alfaro-Velcamp & Shaw, 2016). Lack of proper documentation resulted in constant fear of deportation and inability to get formal employment that require permits and visas.

1.1 Migration Challenges

Migration involves breaking with family, with established social relationships and adapting to a new psychological environment (Hutchison, 2010; Makina, 2013). Migrants from developing to developed nations normally experience huge material gains and higher wages (Schiantarelli, 2005). Bhugra and Jones (2001) and Keys et al (2015) stated that moving from the country of origin to another country can have a negative impact on migrants’ psychological wellbeing. Similarly WHO (2001) reported that migration exposes migrants to stressful situations and an increased threat of psychological disorders. Ornelas and Perreira (2011) reported that many migrants undergo a difficult decision-making process of analysing the push and pull factors before relocation. Letiecq, Grzywacz, Gray and Eudave (2014) found that migrants frequently experience changes in their social lives and in their economic status. Messias and Rubio (2004) noted that, differences in language, weather conditions, diet, entertainment and health services may affect their health positively or negatively. Hutchison (2010) and Fungurai (2015) stated that the shift may be followed by unanticipated negative consequences and may require exceptional coping and social adjustments. Resilience is also required in migrants considering the transition and challenges they may encounter in the new destinations (Brown & Turner, 2010). Numerous studies have been done on migration-related stress, coping and mental health problems in developed countries (Hovey, 2000; Thao, 2016; Winkelman, Chaney & Bethel, 2013). In addition Banks, Kohn-
Wood and Spencer (2006), Gee, Spencer, Chen, Yip and Takeuchi (2007) and Miller and Chandler (2002) (as cited in Bernstein, Park, Shin, Cho & Park, 2011) have also done research on migration-related stress. Research has shown that religiosity and spirituality are crucial in coping and resilience among migrants. Numerous researchers have found religiosity to be negatively related to stress as migrants draw their strength from their beliefs (Hagan & Ebaugh, 2003; Kamya, 1997; Rugunanan & Smith, 2011; Tlcimukova, 2013). However limited attention has been given to stress, coping and resilience of migrants in a South African context.

1.2 African migrants in South Africa

South Africa is an important destination for migrants from Sub-Saharan Africa especially from the neighbouring African countries (Chinomora & Madziriri, 2015; Ratha & Shaw, 2006). Landau and Haupt (2007) reported that many African migrants to South Africa expect to find protection and employment opportunities. However, their anticipations were not fulfilled mainly through their experiences of violence, discrimination, unemployment and restricted health-care (Idemudia, Williams & Wyatt, 2013; Harris, 2001).


Idemudia, Williams and Wyatt (2013) noted that being undocumented is the main source of stress among the majority of Zimbabwean migrants. As the majority of Zimbabwean
migrants are undocumented it is a challenge for them to find employment especially in the formal sector and difficult for them to move freely as they fear deportation. Unemployment among migrants is also as a result of lack of recognition of their qualifications. High levels of unemployment among black South Africans also intensify the competition for employment (Dodson, 2010).

Numerous studies have shown that the majority of Zimbabweans and other African migrants experience discrimination and exploitation (Neocosmos, 2008; Dodson, 2010; Idemudia, Madu & Wyatt, 2013; Zinyama, 1990). Stereotyping of migrants exaggerates perceived cultural differences leading to prejudice and hatred (Landau & Segatti, 2009). Friebel, Gallego and Mendola (2013) also noted that migrants lack the receptivity, acceptance, and social support that they expected. They are exposed to stressful conditions that threaten their physical and mental well-being. Their stress is aggravated by the fact that the decision to migrate for most of them was perceived to be involuntary (Dodson, 2010; Harris, 2001; Morris, 1998; Rugunan & Smith, 2011). Numerous studies found that migrants often live under overcrowded conditions that impact negatively on both physical and psychological health (Belvedere, Mogodi & Kimmie, 2003; Landau & Segatti 2009; Rugunan & Smith, 2011).

1.3 Motivation for the study

Numerous studies on stress and mental health have been undertaken mostly in developed countries (Bernstein et al., 2011; Thao, 2016; Ornelas & Perreira, 2011; Steffen & Bowden, 2006; Winkelman et al., 2013). However not much research has been done among migrants in Africa. Migration challenges such as racial discrimination, lack of proper documentation and unemployment have been broadly reported in the psychological literature across the globe. This has brought an understanding of challenges related to migration, however limited
attention has been given to ways of coping with stress, resilience and positive adaptation. Hence this study seeks to describe the level of stress experienced and the resilience and coping strategies Zimbabwean migrants utilise to reduce or overcome the negative effects of migration. This investigation will provide a glimpse into the interrelationship between stress and the coping and resilience mechanisms used by Zimbabwean migrants. The findings of this study can be used to inform health promotion programmes that aim to reduce stress and support the mental wellbeing of migrants.

1.4 Research aims/objectives

The present study aims to:

- Describe the levels of stress of the sample of migrants;
- Describe the resilience levels of the sample of migrants;
- Describe the coping strategies of the sample of migrants;
- Examine the interrelationship between stress and both coping and resilience; and
- Examine the main variables of coping, stress and resilience in relation to key demographic characteristics (age, gender, marital status, employment status, and duration of stay).

1.5 Definition of terms

**Stress**

Lazarus and Folkman (1984) defined stress as a relationship between the individual and the environment that is appraised by the individual as challenging and surpassing available means. Stress has become a common term in modern conversations as people define and describe their feelings of helplessness, nervousness, anger, anxiety and tension (Cohen &
Williamson, 1988; Edwards & Cooper, 1988).

**Coping**

Lazarus and Folkman (1984) argued that individuals who cope can minimize stress and those who are resilient are better able to cope with stress. They defined coping as the thoughts and behaviour used to manage the internal and external demands of situations that are appraised as stressful.

**Resilience**

Resilience is defined as one’s ability to cope well with adversity, perseverance and adaptation when things go wrong (Reivich & Shatter, 2002). Resilience skills prepare individuals to deal with difficulties, reach out for opportunities, establish healthy relations and be less inclined towards depression (Reich, Zautra & Hall, 2010).

**Migrants**

Migrants are people who cross cultural, geographic, or political boundaries with the intention to stay for a long period of time or to live permanently (Ratha et al., 2016). In this study, migrants are Zimbabweans who have lived in South Africa for at least a year.

**Refugees**

A refugee is defined as an individual running away from persecution, generalised human rights violations or armed conflict in the country of origin (UNHCR, 1998).

**1.6 Dissertation structure**

*Chapter One: Introduction*
The background, context and structure of the study are presented in this chapter. The definition of terms and rationale of the study are also presented.

**Chapter Two: Literature Review**

This section presents both international and local studies that have been done on stress, coping and resilience among migrants. The review will focus on themes such as stress and its relation to coping and resilience, acculturative stress, coping strategies and the relationship of demographic variables to stress, coping and resilience. The theoretical frameworks guiding the study are presented in this chapter. These include the transactional model of stress and coping (Lazarus & Folkman, 1984) which was late revised by Folkman (1997), the psychological resilience model (Maddi & Kobasa, 1984) and the resilience-based stress–appraisal–coping model (Castro & Murray, 2010).

**Chapter Three: Methodology**

This section covers the methods used in conducting this study. The following components are explained; the design used in the study, sample and sampling strategy, recruitment procedure and field work, ethical considerations, instruments used to collect data, as well as methods of analysing data.

**Chapter Four: Results**

This chapter contains the results of the study that was carried out on the sample of 120 Zimbabwean migrants. The findings from the analysis of data are presented along with the means and standard deviations of the main variables. Results from the analysis of the interrelationships of scales, subscales and selected demographic variables are also presented in this chapter.
Chapter Five: Discussion

Findings of this study are discussed in relation to the existing literature review. Results are also compared with other studies on stress, coping and resilience. Coping strategies are discussed and compared to other studies that have done research on coping among migrants.

Chapter Six: Summary, Conclusion and Recommendation

The summary of the study is presented in this chapter. Conclusions drawn from the research including limitations of the study and recommendations are also presented.

1.7 Summary

International migration has increased in present-day social and economic life globally. Migration has both positive and negative effects on individuals involved. South Africa is home to many African migrants including Zimbabweans who are currently facing economic challenges. Numerous studies have shown that African migrants are confronted with racial discrimination, lack of proper documentation, unemployment and exploitation in South Africa (Dodson 2010; Idemudia, Williams & Wyatt, 2013; Harris, 2001; Rugunanan & Smith, 2011; Zinyama, 1990). However, to concentrate only on the negative effects of migration is to miss a crucial opportunity to capture internal and external resources that allow them to cope. Despite efforts to describe hardship, vulnerability and adjustment there is still a gap in coping and resilience research. Hence this study seeks to examine the levels of stress, resilience and coping mechanisms that migrant Zimbabweans in the Pinetown area use to cope with migration challenges.
Chapter Two: Literature review

This section covers both international and local empirical studies that have been done on stress, coping and resilience among migrants. The review focuses on themes such as stress and its relation to coping and resilience, acculturative stress, coping strategies and the relationship of demographic variables to stress, coping and resilience. The theoretical frameworks guiding the study are also presented in this chapter. These include the transactional model of stress and coping (Lazarus & Folkman 1984) which was revised by Folkman (1997), the psychological resilience model (Maddi & Kobasa, 1984) and the resilience-based stress–appraisal–coping model (Castro & Murray, 2010).

2.1 Empirical literature

Migrants have positive expectations when they move to other countries. However, numerous studies have reported stress and mental health problems among migrants in general (Bhugra & Jones 2001). Recent research has seen a shift from negative to positive aspects of adaptation and adjustment, resilience and coping behaviours. Over the years, studies among migrants found resilience to be related to improved health as it promotes adaptation and reduces the negative effects of stress (e.g. Aroian & Norris, 2000; Rutter, 1993; Wagnild & Young, 1993). Researchers have also turned their attention to coping strategies that define how migrants deal with challenges (Kim et al., 2012; Rugunanan & Smith, 2011; Terefe, 2015). A number of themes have emerged from the literature including acculturation and adjustment, language problems, irregular documentation, poor psychological health, unemployment and discrimination. However not much has been done to examine stress in relation to levels of resilience and coping strategies especially among African migrants.
2.1.1 Stress

Because the USA received the largest number of international migrants it is not surprising that most of the research is on migrants in the US. The WHO (2001) reports that migration experiences can cause stress. Oh, Koeske and Sales (2002) note that studies on migration stress and mental health challenges have uncovered complications of resettlement, uprooting, alienation, discrimination, and identity issues as some of the key issues. According to Silva and Dawson (2004), female Brazilian migrants in Australia attributed their stress to homesickness, absence of family support and disunity among themselves. Conrad and Pacquaio (2005) found that chronic stress was experienced by Hindu and Asian Indian migrants to the United States. They cited a clash of values as the reason for their difficulty in adapting to the new environment. Winkelman et al., (2013) found that migrant seasonal farm workers living in the United States showed high stress levels. Common causes of stress identified were separation from family, language barriers, documentation issues, poor housing, discrimination and exploitation. Many of these migrants reported substance abuse as a coping strategy. Keys, Kaiser, Foster, Burgos & Kohrt (2015) examined the association between stress and discrimination among Haitian migrants in the Dominican Republic and found that discrimination, humiliation and limited access to health care contributed to stress.

Numerous studies have reported that many United States migrants experience stress and depression from racial and ethnic discrimination that they encounter (Banks et al., 2006; Gee et al., 2007; Miller & Chandler, 2002 as cited in Bernstein et al., 2011). Oh et al., (2002) found that the prevalence of depression among Korean migrants in the US was almost twice that found in the general US population. A recent study by Thao (2016) reported that more than a third of Vietnamese married women living in Korea suffered from depression. The increasing depression levels among Vietnamese migrant women was attributed to isolation,
limited access to social resources and social support. According to Finch, Catalano, Novaco and Vega (2003), Mexican migrants in California found stress to be associated with negative emotional health outcomes. When compared to those born in USA they were exposed to high levels of exclusion, discrimination and employment frustrations which push them to use alcohol to reduce stress. While the studies reviewed above refer to stress in the context of migration experiences, the following make specific mention of the acculturation stress experiences.

2.1.1.1 Acculturative stress

Acculturative stress is defined as the psychological difficulty in adapting to different norms and values (Berry, 2005). According to Haasen, Demiralay and Reimer (2008) stress was found to be experienced during the acculturation process. It is possible that the separate domains of acculturation may affect individuals differently, depending on their cultural background, pre-migration experiences, and receptivity in the country to which they have immigrated. Symptoms of acculturative stress include but are not limited to, confusion, anxiety, depression, feelings of isolation and hopelessness (Berry, 2005). A study among Korean international students by Lee, Koeske and Sales (2004) found that acculturative stress is positively related to depression as participants with high levels of acculturative stress displayed more depression and anxiety. According to Carballo and Nerukar (2001) language difference is one of the main components of acculturation that may cause stress among migrants. They reported that inability to communicate may result in poor explanation of health problems and may generate feelings of isolation whereas the ability to communicate may encourage healthcare-seeking behaviour. This is supported by Lueck and Wilson (2010) whose study concluded that language difference was a significant factor in acculturative stress. Their study showed that bilingual language preferences and native language skills
reduce acculturative stress. Torres and Rollock (2004) found general coping and intercultural competency to be significant predictors of acculturative stress among Hispanic adult migrants living in the US. It seems that interpersonal and inter-cultural coping skills enable migrants to mobilise their accessible resources successfully to deal with migration challenges and to negotiate their way through differences and misunderstandings efficiently in the new environment. While migration experiences have been shown to cause stress, migrants have also managed to use different coping strategies to try and reduce or to eliminate stress.

2.1.2. Coping

Three different coping strategies have been shown in the literature namely, problem-focused coping (where efforts are directed at doing something constructive such as planning, seeking information, and taking action), emotion-focused coping (which aims to reduce negative emotional responses such as fear, anxiety and loneliness that occur after experiencing stressful situations) (Lazarus & Folkman, 1984), and meaning-focused coping, whereby a person’s positive emotions are generated by his/her spiritual/religious beliefs and goals to restore, sustain and motivate problem-focused and emotion-focused coping (Folkman, 1997). Findings on migrants appear to vary as to which strategy is used more often as can be seen from the review of literature.

Problem-focused coping

Moghaddam et al., (2002) found that problem-focused coping was more effective than emotion-focused coping among Indian women in Canada. Zheng and Berry (1991) in a Canadian study among migrants, found that Chinese sojourners, who were the least
acculturated new arrivals to Canada, reported experiencing more stressful situations than Chinese and European students. The sojourners used more problem-focused coping such as seeking information, and less emotion-focused coping strategies than did European and Canadian students. This finding suggests that migrants tend to use more problem-focused coping during their early days in the new environment as they would be determined to seek as much information as they can to solve their migration challenges. Noh and Kaspar (2003) showed that Korean migrants in Toronto utilised problem-focused coping more effectively than those who used emotion-focused coping. This finding suggests that migrants who use problem-focused coping are able to eliminate challenges and may have less stress that those who utilise other coping strategies.

**Emotion-focused coping**

In an earlier study among Southeast Asian migrants, Noh, Beiser, Kaspar, Hou & Rummens (1999) found emotion-focused coping to be effective. Both studies examined the effects of cultural values and social contexts in coping with perceived racial discrimination. The difference in coping strategies is attributed to the fact that Korean migrants in the earlier study based their coping on social contexts while in the later study by Noh and Kaspar (2003) migrants based their coping strategies on cultural values and norms. Farley, Galves, Dickinson and Perez (2005) compared stress-coping strategies among Mexican migrants, Mexican-Americans and non-Hispanic white Americans and noted that Mexican migrants used positive emotion-focused coping more than negative emotion-focused coping (substance abuse and self-distraction). Studies that were done to examine the acculturation process among general international students found that Taiwanese and Chinese used emotion-focused coping (self-discipline) to reduce stress (Chen, Mallinckrodt & Mobley,
2002; Wei, et al., 2007). A study by van der Ham, Ujano-Batangan, Ignacio and Wolffers (2015) found that migrant domestic workers from the Philippines used emotion-focused coping as they felt they lacked control over situations in their new environments. Numerous studies found that international students used emotion-focused coping as they reported being socially connected (Chen et al., 2002; Thomas & Choi, 2006; Yeh & Inose, 2003). Atri, Sharma, and Cottrell (2007) in their study concluded that the Indian international students` psychological health depended on them receiving emotional support (empathy, care, trust and reassurance) from family and friends.

**Meaning-focused coping**

Aiming to capture the daily lives and survival strategies among Congolese and Burundian migrants in Pretoria, Rugunanan and Smith (2011) found that despite many challenges, these migrants used problem-focused coping where they survived through petty trading, street vending and asking for help from relief organisations. They also utilised meaning-focused coping as they reported drawing motivation from their religious beliefs. Dyck (2003) found that South Asian women in British Columbia used meaning-focused coping as they engaged in prayer to sustain and restore their positive emotions. Kim et al., (2012) examined coping strategies in the adaptation of Korean adolescent migrants in USA and found that these adolescents utilised meaning-focused coping. Kheezhangatte (2006) reported that Indian female domestic workers in Hong Kong utilised meaning-focused coping as they drew strength from looking back to where they came from and their need to provide for their families. Most of the studies on coping have been conducted among international students, a population that is different from the general migrant population which is the focus of this study. This means that although they are all migrants their goals, expectations and stressors in
the host country may not be the same. According to Folkman (1997), meaning-focused coping produces positive motions that assist in the building of individual resilience. The variation in findings may be due to a number of factors such as the difference in context, sample and setting.

2.1.3. Resilience

Connor and Davidson (2003), in describing Richardson’s model of resilience, noted that “resilience may thus also be viewed as measure of effective stress-coping ability” (p.77). Definitions of coping and resilience are complex and can sometimes be used interchangeably while in other instances they appear to measure different things. It is worth mentioning that limited research has been done on resilience in adults and more precisely among adult migrants. Numerous studies have been conducted on adolescents and children (Brody, Yu, Chen, Miller, Kogan & Beach, 2013; Magaya, Asner-Self & Schreiber, 2005; Masten, 2014; Masten & Narayan, 2012; Masten, Herbers, Cutuli & Lafavor, 2008; Panter-Brick & Leckman, 2013; Resnick et al., 1997).

Regardless of the gap in resilience literature, research has confirmed that protective factors that allow children to overcome hardship could apply to adults facing similar situations (Campbell-Sills, Cohan & Stein, 2006). In spite of the fact that resilience appears highly relevant in the migration context where migrants are faced with various challenges, it has been understudied hence this study aims to examine the level of resilience in this sample of migrants. Terefe (2015) reported that Ethiopian women labour migrants’ returnees who had moderate to high perceived stress because of irregular documentation and poor working conditions used emotional and problem-focused coping. He also found that high resilient migrants had lower levels of stress as the use of adaptive coping strategies enabled them to fit
into the new environment. A study by Aroian and Norris (2000) on resilience, stress and depression among Russian migrants to Israel found a positive association between high resilience and enhanced wellbeing and a negative relationship between low resilience and stress scores. They found that resilient migrants understood that being in a new environment comes with situations that are unavoidable and challenging but which can be managed and adapted to. They also noted that high resilience among these migrants was associated with better health and lower stress.

2.1.4. Demographic characteristics

Several studies have shown that the relationship between demographic characteristics and stress, coping and resilience vary with personality, beliefs, and circumstances surrounding migration. Tousignant (1992) found that the association between migration and well-being differs as a function of gender, age and financial position. In addition to age and gender, stress-coping and adjustment can be moderated by migration motivation, expectations, personality, language, religion, duration of stay, resources available and attitudes of people in the host nation (Berry, 1997; Castro & Murray, 2010). The studies that are used to examine these selected demographic characters are in the context of migration.

Age

Literature on age as a predictor or mediator of stress, coping and resilience has not been consistent. Some studies found age to be significant and positively or negatively related to stress, coping and resilience while others show no relationships with these variables. Cohen and Janicki-Deverts (2012) found a negative association between age and emotional stress. Lockenhoof, Costa and Lane (2008) noted that as people grow older, they pay attention to
positive aspects of life rather than negative emotions that may cause stress. Sumer, Poyrazli and Grahame (2008) found that the younger international students (the majority of whom were Indians and Chinese) reported experiencing less acculturative stress than older students. This is possibly due to their flexibility and tolerance to new culture. On the other hand, Msengi (2003) found younger migrants to be more stressed because of immaturity and limited coping strategies when faced with stressful experiences. Ritsner and Ponizovsky (2003) conducted a study among Russian migrants in Israel and found that older migrants reported higher levels of stress.

**Gender**

Studies on gender differences in relation to stress, coping and resilience in the context of migration have found varying results. Some studies have found male Asian migrants in the US to be more stressed than females (Yan & Berliner, 2009), while others reported more stress among females international student in the US (Bhadra, 2007; Rajapaksa & Dundes, 2002). Studies have noted that female migrants reported much higher stress levels as compared to males in similar circumstances (Aroian & Norris, 2002; Patiño & Kirchner, 2010). However according to Dyck (2003) migrant women have the capability to deal with hardships successfully and to take practical steps to improve their wellbeing.

Some studies among migrants have also found no significant gender differences in coping and adjusting to new environment (Poyrazli, Kavanaugh, Baker & Al-Timimi, 2004; Yeh & Inose, 2003). Some gender differences may depend on contexts and challenges faced. Chinese and Somali Canadian women in Toronto, Edmonton and Vancouver found different means of developing their community through innovative child-care sharing schemes and women’s support groups (Teng, Blackmore & Stewart, 2007).
**Length of stay**

Research findings have shown variations in the relationship between length of stay and stress, coping and resilience. Several researchers have observed that the longer migrants stay in their new environment the more they establish new networks, and the better their adjustment to new culture, weather, food and new languages. The longer they stay in a new country the less they experience acculturation stress (Baron-Epel & Kaplan, 2001; Steffen & Bowden, 2006; Wang & Mallinckrodt, 2006; Wilton & Constantine, 2003). However, Bennett and Boshof (1996) found that South Africans who had lived longer than their South African counterparts in New Zealand perceived themselves as lacking control over migration challenges and were more likely to use avoidant-coping than problem-focused coping. Kim, Carrasco, Muntaner, McKenzie and Noh (2013) found that on arrival in Canada, the majority of migrants reported being stress free and in good health. However a significant increase in poor health was noted among Chinese men, South Asian and Chinese women during the following four years.

**Religiosity and religious participation**

Studies on the relationship between religiosity and migration have presented varying outcomes. Finke and Stark (1992) as cited in McCleary and Barro (2006) noted that migration reduces religious participation while Hagan and Ebaugh (2003) found that it actually increases migrant’s religiosity. Kamya (1997) conducted a study among African migrants in the United States and the results showed a significant relationship to stress, coping and spiritual wellbeing. Religiosity was significantly associated with low stress and greater hardiness. According to a study by Hutapea (2014) high religiosity was found to be
positively related to high adjustment, implying that an increase in religiosity was associated with moderate stress. Research has also shown that women are generally more religious than men (Beit-Hallahmi & Argule, 1997; Loewenthal, MacLeod & Cinnirella, 2002).

2.1.5. Summary

It is important to note that stress among migrants appears to be inevitable across differences in context, samples and cultural values of migrants. Although students whose migration is temporary cannot be compared to a general population or women in particular whose migration may be permanent, it is clear that they each experience stress as they endeavour to achieve their different goals. Studies have shown that problem, emotion and meaning-focused coping are the main strategies that are commonly utilised by migrants. Resilience among migrants was reported to be negatively associated with stress.

Studies have shown that very little research has been done on stress, coping and resilience among African migrants especially in South Africa. Hence this study seeks to illuminate the relationship between these three main variables. Studies have shown inconsistency in the relationship between stress, coping and resilience by demographic characteristics (length of stay, gender, age) in the migration context. This study will also shed light on the relationship of these variables in a sample of Zimbabwean migrants by examining the main variables by key demographic characteristics.

Religion in the context of migration among African migrants has not been researched adequately. This study will shed light on how religion and religiosity are related to stress, coping and resilience among African migrants in Pinetown, South Africa.
2.2. Theoretical Framework

The theoretical frameworks guiding the study include the transactional model of stress and coping (Lazarus & Folkman 1984) which was later revised by Folkman (1997), the psychological resilience model (Maddi & Kobasa, 1984) and the resilience-based stress–appraisal–coping model (Castro & Murray, 2010).

2.2.1 Stress

Lazarus and Folkman (1984) defined stress as an association between the individual and his/her surroundings that is regarded by the individual as challenging and as surpassing obtainable resources. Davydov, Stewart, Ritchie and Chaudieu (2010) noted that severe demands have the potential to cause different reactions among individuals due to their subjective experience of these difficulties. An event which could be demanding and stressful for one person could have minimal to no effect on another person's life and well-being. Folkman (2010) noted that at some point all humans face stressful situations in their family, at work and in their spiritual lives. Often the way individuals cope with these situations and their resilience determines the level of adjustment and adaptation.

*Types of stress*

Stress is described in three different types which are; acute, episodic and chronic. The acute form is the most common type of stress that improves performance by giving one the motivation to succeed (Park & Folkman, 1997). Acute events occur as isolated stressors that may seem normal and allow for more focused coping efforts (Bonanno et al., 2011). Noticeable symptoms of acute stress include anxiety, irritability and anger (Friedman, 2015).
Persistent acute stress may graduate to episodic stress which may develop to include high blood pressure if not managed. Chronic stress is the emotional response to prolonged exposure to challenges over which individuals perceive themselves to have a lack of control (Selye, 2013). Kirmayer et al (2011) noted that chronic stress is brought about by long-term exposure to stressors such as migration challenges, unhappy marriages, abject poverty and traumatic experiences. Psychological conditions such as depression and post-traumatic disorder can originate from chronic stress (Bonanno & Diminich, 2013).

2.2.2 Stress and Coping Model

This study draws on Lazarus and Folkman’s (1984) Stress and Coping model which has been revised, adopted and modified over the years (Folkman, 1997). It can be applied to individual migrant experiences that are perceived as challenging. Through cognitive appraisal processes, migrants could evaluate the significance of what is happening to them and determine whether or not they have adequate abilities and resources to cope with the stressful situation (Fletcher & Scott, 2010). This model formed the basis of the Perceived Stress Scale which measures stress as appraised by the participants. Whether a particular situation or environment is considered to be stressful or not, is said to be determined by stages of cognitive appraisal which are; primary, secondary and reappraisal (Lazarus, 1993).

*Primary appraisal* consists of one's first cognitive response to an event in which one decides whether or not there is anything personally at stake in the situation or encounter (Folkman, Lazarus, Gruen & DeLongis, 1986). It evaluates and determines whether or not the migration stressors at hand are harmful, irrelevant, benign or threatening/challenging (Ferguson, Mathews & Cox, 1999).
Secondary appraisal involves an evaluation of available resources and individual coping abilities to overcome situations that are identified as threatening and harmful. These may include unemployment or racial discrimination posed by migration. Coping strategies and their potential outcomes are also evaluated (Folkman et al., 1986; Folkman, 2010). Secondary appraisal depends on how much control individuals feel they have. Stress may be high due to the perception that the threat or harm cannot be prevented (Kennedy, Lude, Elfström & Smithson, 2011).

Reappraisal is an adjustment to the appraisal based on new information gained from the surroundings and the individual.

2.2.3. Coping

According to Lazarus and Folkman's theory (1984), coping is the application of purposeful cognitive and behavioural efforts to manage those internal and external demands that are regarded as taxing or exceeding resources. The cognitive components of secondary appraisal are problem-focused, emotion-focused and meaning-focused coping (Folkman, 1997).

Problem-focused coping strategies are used to plan, seek information and instrumental support to eliminate risk factors. They are used when individuals feel in charge, having the capability to define the problem and evaluate solutions as well as the capacity to learn new skills to manage stress.

Emotion-focused coping strategies regulate emotional responses and the way an individual feels about the stressful situation. They are used where there is little control of the situation.
Coping strategies that are problem-focused or emotion-focused result in either favourable or unfavourable outcomes. When favourable event outcomes for example social acceptance and employment are achieved, positive emotions are experienced. On the other hand unfavourable event outcomes (e.g. racial discrimination and exploitation) may cause stress or may lead to meaning-focused coping (Folkman, 1997).

*Meaning-focused coping* is a more recent addition to this model where individuals draw on spiritual values and personal goal expectations to motivate and sustain coping. It generates positive emotions that help build resilience to re-establish coping resources to motivate and sustain problem-focused coping (Folkman, 1997). Positive emotions such as maintaining social relationships and an appreciation of the uniqueness of self also help in building resilience (Ong, Fuller-Rowell, Bonanno & Almeida, 2011).

Coping strategies identified in this model will be used to assess how this sample of Zimbabwean migrants cope with migration-related stress. Folkman (2013) noted that coping behaviour should be considered in the context of the situation and should not be judged or compared in terms of the outcome. Effective coping should be considered that which allows the person to tolerate, minimise or accept that which cannot be changed or mastered (Lazarus, 1993). Lazarus and Folkman (1984) proposed that individual coping is partly determined by personal and environmental resources, energy levels, instrumental and social support, commitments and problem-solving skills. According to Folkman and Moskowitz (2000), constraints such as internalized cultural values and beliefs may mitigate against using some coping resources. High levels of threat may impede the use of appropriate and effective problem-focused skills. A coping process that is influenced by negative appraisal may cause individuals to approach the stressful situation in a passive and emotion-focused manner.
Folkman (2013) noted that coping is determined by the appraisal of the stressful context and social resources.

2.2.4. Resilience-based stress–appraisal–coping model

The study draws on the Resilience-based stress–appraisal–coping model, a refined model rooted in resilience research (Castro & Murray, 2010). From this perspective ‘resilience’ can be defined as “the adaptation of migrants in the midst of numerous challenges faced in the receiving nation” (Castro & Murray, 2010, p.376). Migrants’ coping resources, abilities and interactions at individual, family and community level are regarded as vital in nurturing and facilitating resilience. The model states that migrant adaptation develops across eight domains. Stress is underlined within the domain of challenging events that are perceived as threats. Resilient coping behaviour involving factors such as competence and control are highlighted within the domain of adaptation responses, where coping efforts are triggered to deal with stressors (Aber, Brown, Jones, Berg, & Torrente, 2011; Yates & Grey, 2012). The model specifies that cognitive appraisal and coping behaviour in response to stress and difficulties can be either adaptive or maladaptive. Their theory introduces resilience as a character-logical attribute, to explain individual differences by framing adaptation from a developmental point of view (Masten, 2013; Bonanno, Westphal & Mancini, 2011).

2.2.5 Resilience

Resilience is when a person is able to cope with hardship, persevere and adapt successfully to situations that threatens wellbeing (Masten, 2014). It enables individuals with stressful situations to reach out to find new opportunities (Reivich & Shatter, 2002). Resilience varies with context and personal exposure to varying life situations (Richardson, 2002; Rutter,
Protective factors such as personality, family support, connectedness, supportive communities, social opportunities and networks increase resilience in migrants (Bond, Thomas, Toumbourou, Patton & Catalano, 2000). Psychologists describe these factors at an individual level as coping skills and personality, but anthropologists recognise the influence of societies and culture in defining stressors and resources to use (Hobfoll & Vaux, 1993). Character and coping skills both separately and dependently influence wellbeing (Carver & Connor-Smith, 2010). Resilience has also been acknowledged as a mediator between the person, his/her surroundings and the result (Ahern, Ark & Byers, 2008).

**Components of resilience**

Resilience can be viewed in terms of two different components which are either:

*As an acquired skill*

Resilience as an acquired skill is attained through developmental life experience and it is dependent on risk factors, adversity and the social environment (Rutter, 2012). Resilience is only evident when people are presented with challenges and situations such as migration (Rutter, 2005). Moreover the process of resilience as an acquired skill varies with the context and circumstances surrounding the adversity (Johnson & Wiechelt, 2004). As cited in Davydov et al (2010) Chaboyer and Wallis (2007) also noted that resilience is a process of fighting against adversity and can be learned at any stage of life. This model can be used in a more longitudinal-type research; or

*As a personal trait*

Wagnild and Young (1993) noted that resilience is a personality trait based on personal characteristics that enable one to respond successfully to adversity. It is based on personal competence such as resourcefulness, perseverance, self-reliance, independence, determination and mastery (Connor & Davidson, 2003). Resilience therefore is regarded as
an adaptive and resistant individual characteristic that allows a person to succeed in the face of stressors (Bonanno, Pat- Horenczk & Noll, 2011; Yates & Grey, 2012). Either one could be used in a study of migrants but the design of the present study uses the latter.

2.2.6 Theory of Psychological Resilience

Kobasa, Maddi and Kahn (1982) defined psychological resilience as a persistent belief that one can react and successfully respond to difficult circumstances. Three common characteristics were identified in resilient people:

(i) Commitment is the valuing of self, relationships, investment of oneself and perseverance through stressful events;

(ii) Control as opposed to powerlessness, entailing the belief that life events are in part a result of one’s own actions and attitudes and trust in their capabilities to handle controllable adverse situations; and

(iii) Challenge as opposed to threat, where stressful life situations are seen as opportunities for growth.

This model has elements of both resilience as a personal trait and as an acquired skill. This study draws from Kobasa’s conceptualization of resilience to examine the level of resilience among Zimbabwean migrants. Individual lives are socially embedded and this study assumes that, in addition to individual characteristics, certain kinds of resources provided by developmental networks are critical to building resilience in the migration context (Costa & McCrae, 1992). In this study the concept of resilience is expanded to include an individual internal perspective of resilience and the interdependence perspective of resilience (external factors) to accommodate social networks and demographic variables (Connor & Davison, 2003).
2.2.7 The relationship between stress, coping and resilience

According to Folkman and Moskowitz (2004), coping manages stressful situations while resources that promote resilience such as hardiness, social support and problem-solving abilities mediate the individuals’ response to stressors. They noted that individuals who cope minimize stress and those who are resilient may cope with stress. Rutter (2006) noted that successful coping strategies have been shown to increase resilience during times of crucial life changes and challenges such as migration. However, the context of the situation is critical in the process-orientated approach because of the complexity and variability of the actual coping process (Folkman et al., 1986). Individuals’ response to stressors can also be mediated by resources that promote resilience such as knowledge, spirituality/religiosity, expectation and confidence (Turner, 2001). Resilience facilitates evaluation, perception and coping that leads to effective resolution of demanding situations (Connor & Davison, 2003). In light of this view, resilient people are thought to use adaptive coping and to react more effectively to challenging situations (Masten, 2013). These perspectives suggest that the higher the resilience and coping, the lower the stress.

2.2.8 Summary

The stress and coping model and the resilience model have been modified and revised over the years. The theoretical framework shows that cognitive appraisal which consists of primary, secondary and reappraisal determines whether or not the situation is a threat or a challenge and how to overcome or to face it. Three main coping strategies which are; problem, emotion and meaning-focused coping have been identified. The resilience concept has also been added to the stress and coping model as a stress-coping strategy (Folkman, 1997). The Psychological resilience model identified control, commitment and challenge as
the main attributes of resilience. Resilience may be viewed as a personal trait (Connor & Davidson, 2003), an acquired skill (Wagnild & Young 1993) and as a combination of both of these that can be used to measure individuals’ stress-coping ability (Kobasa, et al., 1982). Resilience is also introduced as a character trait that explains why some migrants adapt more successfully than others (Castro & Murray, 2010; Bonanno et al., 2011). Coping and resilience are expected to be negatively associated with stress in terms of the models presented above.
Chapter Three: Method

This section covers the methods used in conducting this study. The following components are explained: the design used in the study; the sample and sampling strategy; recruitment procedure and field work; ethical considerations; instruments used to collect data as well as methods of analysing data.

3.1 Research Design

The research design used in this study is a cross-sectional correlational survey design. A cross-sectional quantitative survey approach allows the researcher to collect information that compares, explains and describes knowledge, behaviour and attitudes at a given time (Gray, 2009; Myer & Hansen, 2006). Correlational research seeks to identify predictive relationships by assessing the co-variation among naturally occurring variables (Shaughnessy & Zechmeister, 2012). Correlation was used to examine the relationship between variables. A quantitative research design is most suitable for this study which seeks to examine levels of stress, resilience and coping strategies as it does not give room for the researcher's values to affect the data collected (McNeill, 2005).

3.2 Sample, sampling strategy and recruitment procedure

A total sample of 120 participants comprising 60 males (50%) and 60 females (50%) was utilised for this study. The majority were married n=86 (71.7 %) with the remaining being single n= 27(22.5%), divorced n=4 (3.3%) and widowed n=3 (2.5%). More than 90% of the sample were in the 20-40 age range. The employment status of the sample was as follows;
n=55 (45.9%) were employed, n=34 (28.3%) were unemployed and n=31 (25.8%) were self-employed.

The criteria for selection of participants for this study were:

- Males or females from the age of 20 years and above;
- They must have lived in South Africa for at least a year; and
- Their ability to read and write English had to be at least at secondary school level.

The study utilised non-probability sampling methods, namely convenience sampling and snowball sampling. Convenience sampling is when available potential participants from the target population are included making the sampling process less costly and less time-consuming without the disruption of the population. (Babbie, 1990; Sekaran, 2003). Snowball sampling method relies on referrals from initial participants to generate additional participants (Shaughnessy & Zechmeister, 2012). This method is often used to locate minority groups who may be subject to stigmatization (Atkinson & Flint, 2001).

The potential participants were addressed at community/social gatherings and religious gatherings and their participation was sought. The researcher (myself) administered questionnaires in groups to those migrants who were willing to participate in the study. Group administration was done wherever the venue was suitable for this purpose. Some of the questionnaires were given out individually, the instructions were explained and arrangements were made to collect the questionnaires at a later stage. A self-administered structured questionnaire was given to participants to complete. The researcher was there to clarify and answer questions. Completion of the questionnaire lasted between 20 to 30 minutes and data were collected over a period of four weeks.
3.3 Ethical considerations

In order to conduct this study the researcher was required to follow certain ethical principles to protect the participants:

- Gate keeper’s permission was obtained from the Pinetown councilor of the ward where the sample for this study was obtained;
- Ethical clearance for the study was sought from the Ethics Committee of the University of KwaZulu-Natal. My ethics number is HSS /1322/016M ;
- The aims, objectives and purpose of the study were explained to the participants;
- Participants were assured of the voluntary nature of the participation, the anonymity and the confidentiality of the study (participant’s names were not written on the questionnaire);
- They were also informed that they were free to withdraw at any stage if they did not feel comfortable to continue with the study; and
- Each participant signed a written informed consent form.

3.4 The Instruments

This study utilised three scale instruments; Perceived Stress Scale-10 (Cohen & Williamson, 1988), Brief Coping Orientation for Problem Experienced Inventory (Carver, 1997), Connor Davison- Resilience Scale (Connor & Davison, 2003) and a demographic questionnaire.

Participants were instructed to answer all the scale instruments in the context of their migration experiences in South Africa (see Appendix C)
**Demographic Questionnaire**

Information was collected on the demographic and social characteristics of each participant. The following variables were required: age, gender, marital status, employment status, length of stay in South Africa and religion. Religiosity was also rated on a scale 0-10 with 0 representing not religious to 10 representing very religious. Documentation status was deliberately left out from this questionnaire because of its sensitive nature.

**The Perceived Stress Scale (PSS) (Cohen & Williamson, 1988).**

According to Cohen and Williamson (1988) the PSS contains 10 items which asks about feelings, thoughts and how often a person felt a certain way during the last month. Each item was assessed using a 5-point range of responses ranging from (0) never to (4) very often. They identified a two-factor structure consisting of negatively worded items and positively worded items. Numerous scholars who have utilised the PSS10 described the two factors as Perceived helplessness (negative items) and Perceived self-efficacy (positive items) (Andreou, Alexopoulos, Lionis et al., 2011; Örücü & Demir, 2009; Roberti, Harrington & Storch, 2006):

- **Perceived helplessness** covers upset feelings, an inability to be in control of life, nervousness and stress, not coping, anger and feelings of being overwhelmed by challenges. Item 3 in the questionnaire asks: *In the last month, how often have you felt nervous and “stressed”?*

- **Perceived self-efficacy** represents feeling confident about handling problems, being able to control irritations, being on top of situations and having things going your way. Items 4, 5, 7, and 8 represent self-efficacy and are the positively stated items which are reverse scored (e.g. 0=4, 1=3, 2=2, 3=1, and 4=0). Item 8 in the
questionnaire asks: *In the last month, how often have you felt that you were on top of things?*

Andreou et al., (2011) and Örüçü and Demir (2009) conducted studies to assess the psychometric properties of the PSS 10 and found satisfactory Cronbach’s alpha values of 0.82 and .84 for the full scale. The coefficient alpha values for their negative subscales were .79 and .84, and the positive subscales were 0.69 and 0.71. Psychometric properties of PSS10 were satisfactory and their use for research and health care practice is warranted. Cohen and Janicki-Deverts (2012) found a satisfactory internal reliability of .78 for the Harris Poll sample and .91 for the 2006 and 2009 eNation samples for the PSS 10. Alkalaldeh and Abu Shosha (2012) found that the PSS is general in nature and may be used on any sub-population group. Cohen and Williamson (1988) provided evidence of the reliability of the PSS10 and its construct validity when correlated with other valid measures. Shah, Hasan, Malik and Sreeramareddy (2010) noted that the PSS showed its effectiveness when used in cross-sectional, longitudinal and prospective studies.

*Brief Coping Orientation for Problem Experienced (COPE) inventory* (Carver, 1997). The scale was developed to measure the ways that people respond to stress imposed by their environments. The Brief COPE inventory was designed to measure both situational and dispositional responses to stressors (Carver, Scheier & Weintraub, 1989). The Brief COPE is an abbreviated version of the COPE inventory that contains 28 items. Each item was assessed in terms of a 4-point range of responses from (1) not at all to (4) a lot. The Brief COPE scale consists of four main factors (and fourteen subscales):

- **Problem-focused coping** consisting of sub-scales such as active coping, planning and use of social support made up of items such as:
Item 2. I’ve been concentrating my efforts on doing something about the situation I’m in.

Item 14. I’ve been trying to come up with a strategy about what to do;

- **Emotion-focused coping**, consisting of the use of emotional support, positive reframing and religion made up of some of these items:
  
  Item 5. I’ve been getting emotional support from others.
  
  Item 22. I’ve been trying to find comfort in my religion or spiritual beliefs:

- **Adaptive coping** mechanisms include humour and acceptance made up of items such as:
  
  Item 28. I’ve been making fun of the situation.
  
  Item 24. I’ve been learning to live with it; and

- **Avoidant coping** consists of sub-scales such as venting, behavioral disengagement, mental disengagement (self-distraction), self-blame, substance abuse and denial made up of some of the following items:
  
  Item 1. I’ve been turning to work or other activities to take my mind off things.
  
  Item 4. I’ve been using alcohol or other drugs to make myself feel better.

In developing the COPE scale Carver, Scheier and Weintraub (1989) emphasized the role of coping as a mediator, placing emphasis on self-regulation. Carver (1997) reported reliability coefficients of .88, .83, .87 and .84 for the problem-focused coping, avoidant coping, seeking social support and turning to religion sub-scales. The brief COPE inventory has been found to have fair to good psychometric properties. Correlations between the sub-scales are also low and this implies that it is possible to use the COPE inventory questionnaire to study the effects of different coping styles independently of each other. As cited in Van der Colff and Rothmann (2009), the COPE scale has been used in several South African studies (Pienaar &
Rothmann, 2003; Van der Wateren, 1997) and has yielded both reliable and valid scores for various cultural groups.

**Connor-Davidson Resilience Scale (CD-RISC)** (Connor & Davison, 2003).

The scale contains 25 items, all of which carry a 5-point range of responses from, (0) ‘not true at all’ to (4) ‘true nearly all of the time’. The scale is rated on how the subject had felt over the past one month. Total scores range from 0-100 with higher scores reflecting greater resilience. The reliability, validity, and factor analytic structure of the scale demonstrate sound psychometric properties. It distinguishes between those with greater and lesser resilience and has good internal consistency. CD-RISC Cronbach’s alpha for the full scale was 0.89 for general population.

When correlated with the Perceived Stress Scale, the CD-RISC showed a significant negative correlation (Pearson r -0.76, p < .001) indicating that higher levels of resilience correspond to less perceived stress (Connor & Davidson, 2003). Resilience is a multidimensional characteristic that varies with context and individuals subjected to different life circumstances. Factor analysis conducted by Connor and Davidson (2003) from subjects in the general population sample yielded five factors whose Eigen values were, 7.47, 1.56, 1.38, 1.13 and 1.07 respectively that could be broadly interpreted as follows:

- **Competence**, high standards, and tenacity for example:
  
  Item 16. *I am not easily discouraged by failure*

  Item 24. *You work to attain your goals*;

- **Perseverance** corresponds to trust in one’s instincts, tolerance of negative affect, and strengthening effects of stress for example:

  Item 6. *I see the humorous side of things*
Item 15. *I prefer to take the lead in problem solving;*

- **Positiveness** in accepting change, and secure relationships such as:
  
  Item 1. *I am able to adapt to change*
  
  Item 2. *I have close and secure relationships;*

- **Control**
  
  Item 22. *You need to be in control of your life.*
  
  Item 13. *I know where to turn for help;* and

- **Spirituality**
  
  Item 3. *Sometimes fate or God can help.*

### 3.6 Data analysis

The Statistical Package for Social Science (SPSS) version 21 was used to analyse the data. Data collected using the measures, the Perceived Stress Scale-10 (PSS), Brief COPE inventory and the Connor Davison Resilience Scale (CD-RISC) were coded and entered into the computer for analysis. Demographic data were analysed using descriptive statistics such as frequencies and percentages. The aim of the study was to describe the levels of stress, resilience and coping as well as to determine their relationship to the demographic variables.

Means and standard deviations were used to describe the levels of perceived stress, coping and resilience. In order to identify the coping strategies employed, item mean values of the Brief COPE inventory sub-scales were examined to identify the most frequently used strategies. Item mean scores equal and above three represented the most frequently used strategies while a score ranging from one to two represented the hardly or not at all used strategies. The study correlated religiosity and sub-scales of the three main variables to
examine their association. Independent T-tests and one way ANOVA were conducted to examine the relationship between scales and selected demographic variables. The divorced, widowed or married status in the 41 years and above age categories were excluded in the analysis as they had too few participants. Only single and married, 20-30 years and 31-40 years categories were analysed.
Chapter Four: Results

The findings are presented in the order of the basic questions of the research. The findings from the analysis of data from the PSS10, the Brief COPE inventory 28 item and CD-RISC 25 item are presented along with the means and standard deviations. Results from the analysis of the relationships of scales, sub-scales and selected demographic variables are also presented in this chapter.

4.1. Description of the sample

Table 1 below shows the demographic information of the total sample of 120 participants which comprised n=60(50%) males and n=60(50%) females utilised for this study. The majority (71%) of the sample were married and most of the participants n=115(95%) were in the 20-40 year age range. All the participants were Christians with a religiosity mean score of 7.8 on a scale of 0-10. While more than a quarter of the participants were unemployed the rest were in either full-time employment or were self-employed.
Table 1  

Demographics of the Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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<td>50</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>60</td>
<td>50</td>
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<tr>
<td>Marital status</td>
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<td></td>
<td>Married</td>
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<td></td>
<td>Divorced</td>
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<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
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<td>2.5</td>
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<tr>
<td>Age range</td>
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<tr>
<td></td>
<td>31-40 years</td>
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<td>41 years +</td>
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<td>Employment status</td>
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<tr>
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<td>Unemployed</td>
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<td>Self-employed</td>
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<tr>
<td>Length of stay</td>
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<td>3-4 years</td>
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<tr>
<td></td>
<td>7 years +</td>
<td>21</td>
<td>17.5</td>
</tr>
</tbody>
</table>
4.2 Descriptive analysis of main variables

Table 2 shows the descriptive statistics of the stress, coping and resilience scales and their sub-scales. Religiosity is also included in the analysis. The mean scores that show the level of these main variables are presented below
Table 2

Descriptive analysis of perceived stress, coping and resilience

<table>
<thead>
<tr>
<th>Scale</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>IM</th>
<th>Skew</th>
<th>Kurt</th>
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<td>5.6</td>
<td>2.4</td>
<td>-.48</td>
<td>-.04</td>
<td>.91</td>
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<td>-.62</td>
<td>.74</td>
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<td>-.49</td>
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<td>23.7</td>
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<td>-.93</td>
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<td>.05</td>
<td>-1.12</td>
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<td></td>
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<td>-.16</td>
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<tr>
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<td>14</td>
<td>8.4</td>
<td>2.7</td>
<td>.08</td>
<td>-.96</td>
<td>.63</td>
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<tr>
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<td>.52</td>
<td>-1.18</td>
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<td></td>
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<td>-.11</td>
<td>-1.04</td>
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<td></td>
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<tr>
<td>Avoidant coping</td>
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<td>33</td>
<td>22.7</td>
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<td>.09</td>
<td>-.80</td>
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<td>.00</td>
<td>-1.08</td>
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<td></td>
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<td>Substance use</td>
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<td>5</td>
<td>1.1</td>
<td>.72</td>
<td>.36</td>
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<td></td>
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<tr>
<td>Behavioral disengagement</td>
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<td>8</td>
<td>1.8</td>
<td>.63</td>
<td>-.72</td>
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<td></td>
<td></td>
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<tr>
<td>Venting</td>
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<td>8</td>
<td>2.1</td>
<td>.18</td>
<td>-.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-blame</td>
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<td>8</td>
<td>1.8</td>
<td>.96</td>
<td>.21</td>
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<td></td>
<td></td>
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<tr>
<td>Religiosity</td>
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<td>10</td>
<td>7.8</td>
<td>1.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Min = Minimum    Max = Maximum    Skew = Skewness    Kurt = Kurtosis    SD = Standard Deviation
IM = item mean    M = Mean
**Stress**

The Cronbach alpha (.87) for the PSS shows a high internal consistency. PSS sub-scales also show an excellent and good reliability. An item mean for helplessness (2.4) and self-efficacy (1.6) was obtained. This implies that perceived helplessness was sometimes reported.

**Coping**

An excellent Cronbach Alpha (.95) for the Brief COPE scale shows high internal consistency and reliability. Problem-focused coping, emotional-focused coping, and avoidant coping have good internal consistency and reliability ratings. Item mean values of the Brief COPE inventory sub-scales ranged from (3.2) to (1.1). The most frequently used coping strategies were religion and planning. Substance abuse was the least used coping strategy with an item mean score of (1.1) implying that migrants reported hardly using alcohol and drugs to cope with stress.

**Resilience**

The Cronbach alpha for the resilience sub-scales (competence, perseverance, positiveness, control and spirituality) showed good reliability α = .85. The item mean scores of the resilience sub-scales ranged from 2.5 to 3.0 representing ‘occasionally’ to ‘often use’. The analysis found a mean religiosity of 7.8 on a 0-10 scale. The Skewness of resilience and stress sub-scale scores are negatively skewed and the Skewness of the avoidant coping sub-scales are positively skewed. The stress, coping and resilience sub-scale scores are normally distributed.

**4.3 Tests of difference among main variables by key demographic factors.**

An independent t-test was utilised to compare the mean score on continuous variables, with
two different groups of participants. In this study the continuous variables are stress, coping and resilience to be compared by gender, age and marital status. Sub-scales were used to find the difference as shown in table 3.

**Table 3**

*Test of difference among sub-scales of main variables by gender, marital status and age*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (Standard Deviation)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Perceived Stress</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Helplessness</td>
<td>14.0(6.05)</td>
<td>14.3(5.05)</td>
</tr>
<tr>
<td>Perceived Self-efficacy</td>
<td>5.6(3.14)</td>
<td>7.1(2.62)</td>
</tr>
<tr>
<td><strong>Coping</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-Focused Coping</td>
<td>16.6(4.43)</td>
<td>16.8(3.40)</td>
</tr>
<tr>
<td>Emotion-Focused Coping</td>
<td>15.5(4.83)</td>
<td>17.1(3.43)</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>8.0(2.96)</td>
<td>8.7(2.43)</td>
</tr>
<tr>
<td>Avoidant Coping</td>
<td>20.8(5.55)</td>
<td>24.6(5.40)</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>24.4(6.88)</td>
<td>22.9(5.84)</td>
</tr>
<tr>
<td>Perseverance</td>
<td>18.9(5.59)</td>
<td>16.0(4.51)</td>
</tr>
<tr>
<td>Positiveness</td>
<td>13.1(4.67)</td>
<td>13.7(4.39)</td>
</tr>
<tr>
<td>Control</td>
<td>8.2(2.92)</td>
<td>7.7(2.67)</td>
</tr>
<tr>
<td>Spirituality</td>
<td>5.6(2.25)</td>
<td>6.1(1.93)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Perceived Stress</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helplessness</td>
<td>12.2(5.61)</td>
<td>14.5(5.52)</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>5.6(3.10)</td>
<td>6.5(3.0)</td>
</tr>
<tr>
<td><strong>Coping</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Focused Coping</td>
<td>16.6(4.43)</td>
<td>16.8(3.40)</td>
</tr>
<tr>
<td></td>
<td>20-30years</td>
<td>31-40years</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Emotion-Focused Coping</td>
<td>15.5(4.83)</td>
<td>17.1(3.43)</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>8.0(2.96)</td>
<td>8.7(2.43)</td>
</tr>
<tr>
<td>Avoidant Coping</td>
<td>20.8(5.55)</td>
<td>24.6(5.40)</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>23.7(5.52)</td>
<td>20.9(6.94)</td>
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<tr>
<td>Perseverance</td>
<td>20.0(5.03)</td>
<td>17.8(5.71)</td>
</tr>
<tr>
<td>Positiveness</td>
<td>16.4(3.43)</td>
<td>14.4(3.95)</td>
</tr>
<tr>
<td>Control</td>
<td>8.2(2.68)</td>
<td>8.0(2.93)</td>
</tr>
<tr>
<td>Spirituality</td>
<td>5.8(1.6)</td>
<td>5.6(2.15)</td>
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<tr>
<td><strong>Age</strong></td>
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</tr>
<tr>
<td><strong>Perceived Stress</strong></td>
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<td></td>
</tr>
<tr>
<td>Helplessness</td>
<td>14.5(5.76)</td>
<td>14.7(4.58)</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>5.9(3.06)</td>
<td>6.7(2.81)</td>
</tr>
<tr>
<td><strong>Coping</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-Focused Coping</td>
<td>17.0(3.93)</td>
<td>16.6(4.21)</td>
</tr>
<tr>
<td>Emotion-Focused Coping</td>
<td>16.3(4.51)</td>
<td>16.3(4.01)</td>
</tr>
<tr>
<td>Adaptive Coping</td>
<td>9.0(2.85)</td>
<td>7.8(2.47)</td>
</tr>
<tr>
<td>Avoidant Coping</td>
<td>21.9(5.38)</td>
<td>23.6(5.95)</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>21.2(6.86)</td>
<td>21.7(6.47)</td>
</tr>
<tr>
<td>Perseverance</td>
<td>18.1(5.39)</td>
<td>18.4(5.62)</td>
</tr>
<tr>
<td>Positiveness</td>
<td>15.1(3.84)</td>
<td>14.7(3.38)</td>
</tr>
<tr>
<td>Control</td>
<td>7.5(2.87)</td>
<td>8.2(2.80)</td>
</tr>
<tr>
<td>Spirituality</td>
<td>5.2(2.13)</td>
<td>6.0(1.85)</td>
</tr>
</tbody>
</table>

Note: *p< 0.05, **p<0.01, ***p<0.001

Table 3 above shows that there was a significant difference in perceived self-efficacy scores between males and females, implying that females reported feeling more confident and more
in control than males. There was a significant difference in the emotion-focused coping and avoidant-coping scores between males and females. Females reported using emotion-focused and avoidant-coping more than males. A significant difference was also shown in the perseverance scores between males and females whereby males reported more tolerance to negative effects than females.

There was a significant difference in the emotion and avoidant-coping scores between married and single participants. This implies that married participants used these coping strategies more than single participants. A significant difference in positiveness was also shown between single and married participants. There was a significant difference in adaptive-coping scores between participants in the age ranging from 20-30years and 31-40years. The younger age group reported using adaptive-coping more than the older age group. There was also a significant difference in spirituality scores between the two age groups whereby older participants reported being more spiritual than the younger ones.

**Table 4**

*Test of differences in religiosity by gender, marital status and age*

<table>
<thead>
<tr>
<th>Religiosity</th>
<th>Mean(standard deviation)</th>
<th>t</th>
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<tbody>
<tr>
<td>Gender</td>
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<td>Male</td>
<td>7.4(2.01)</td>
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<td>Female</td>
<td>8.2(1.70)</td>
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<tr>
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<tr>
<td>Single</td>
<td>6.5(2.16)</td>
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<tr>
<td>Married</td>
<td>8.1(1.66)</td>
<td>-4.022***</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30years</td>
<td>7.3(2.10)</td>
<td></td>
</tr>
<tr>
<td>31-40years</td>
<td>8.0(1.66)</td>
<td>-2.098*</td>
</tr>
</tbody>
</table>

Note: *p<0.05, **p<0.01, ***p<0.001
Table 4 shows that there was a significant difference in religiosity scores between males and females, married and single as well as 20-30years and 31-40years age groups. This implies that females reported being more religious than males. Married participants reported being more religious than the single and the 31-40 years age group were found to be more religious than the 20-30years age group. Some of the categories of marital status (widowed and divorced) and age (41+years) were not included in the analysis because of their very small numbers. These significant differences justifies separate correlation in this study.

Table 5 contains results from one way ANOVA that was utilised to obtain the relationship between main variables (stress, coping, resilience) and employment status as well as length of stay.
Table 5

Tests of differences on main variables by employment status and length of stay

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group(n)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived stress</td>
<td>Employed(n=55)</td>
<td>19.2</td>
<td>7.71</td>
<td>1.944</td>
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<td></td>
<td>Unemployed(n=34)</td>
<td>22.2</td>
<td>6.22</td>
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<tr>
<td></td>
<td>Self-employed(n=31)</td>
<td>21.1</td>
<td>7.27</td>
<td></td>
</tr>
<tr>
<td>Coping</td>
<td>Employed</td>
<td>63.9</td>
<td>13.70</td>
<td>.683</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>62.5</td>
<td>9.27</td>
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</tr>
<tr>
<td></td>
<td>Self-employed</td>
<td>66.1</td>
<td>13.14</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>Employed</td>
<td>71.6</td>
<td>18.00</td>
<td>1.882</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>63.7</td>
<td>19.15</td>
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</tr>
<tr>
<td></td>
<td>Self-employed</td>
<td>67.6</td>
<td>20.00</td>
<td></td>
</tr>
<tr>
<td>Length of stay</td>
<td>Perceived stress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2years(n=25)</td>
<td>18.5</td>
<td>7.13</td>
<td>1.208</td>
<td></td>
</tr>
<tr>
<td>3-4years(n=37)</td>
<td>21.9</td>
<td>7.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-6years(n=37)</td>
<td>20.2</td>
<td>7.15</td>
<td></td>
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<tr>
<td>7+years(n=21)</td>
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<td>6.48</td>
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</tr>
<tr>
<td>Coping</td>
<td>1-2years</td>
<td>65.1</td>
<td>15.21</td>
<td>.157</td>
</tr>
<tr>
<td></td>
<td>3-4years</td>
<td>64.4</td>
<td>13.77</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6years</td>
<td>63.0</td>
<td>10.58</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7+years</td>
<td>64.1</td>
<td>9.69</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>1-2years</td>
<td>71.9</td>
<td>17.47</td>
<td>2.421</td>
</tr>
<tr>
<td></td>
<td>3-4years</td>
<td>61.4</td>
<td>20.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6years</td>
<td>71.2</td>
<td>15.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7+years</td>
<td>71.0</td>
<td>21.02</td>
<td></td>
</tr>
</tbody>
</table>
The analysis show no significant difference in stress, coping and resilience among the employment status and the length of stay categories.

4.4 Tests of relationship among main variables

Correlations were done to analyse the relationship between stress, resilience, coping sub-scales and religiosity. Males and females were also separately correlated on the main variables. Table 5 contains correlation results from both males and females separately.

Table 6

Test of relationships among variables by gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
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<td>3. Resilience</td>
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<td>4. Religiosity</td>
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<td><strong>Females</strong></td>
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<td>4. Religiosity</td>
<td>-.368**</td>
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Note: *p<0.05, **p<0.001

The relationship between resilience and stress for males is strong $r = -.639, p<0.001$ while moderate for females $r = -.380, p<0.001$. There is a significant relationship between religiosity, stress and resilience for females whereas for males religiosity is significant and negatively related to coping. The findings suggests that females tend to draw their resilience
from religion while males tend to use religion as a coping mechanism. The results imply that high religiosity is associated with low stress among females.

Table 7 contains the correlations of stress, resilience, coping sub-scales and religiosity.

Table 7

Correlations of stress, coping, resilience subscales and religiosity

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<td>.340**</td>
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*p<0.05,   **P<0.01
PFC=Problem-focused coping    Con= Control    Reli=Religiosity    Var=Variables
AdC= Adaptive Coping         Per=Perseverance  Hel=Helplessness    SE=Self-Efficacy
AvC= Avoidant Coping         Com=competence   Spi=Spirituality   Pos=Positiveness
EFC= Emotion-focused Coping

**Stress**

Perceived helplessness and perceived self-efficacy are significant and positively related to each other as they all measure stress.

**Helplessness** has a significant positive relationship with all coping sub-scales. It is also significant and negatively related to all resilient sub-scales. This implies that an increase in
helplessness is associated with a decrease in resilience and an increase in coping.

*Self-efficacy* has a significant and positive relationship with adaptive coping. It also has a significant and negative relationship with all the resilient sub-scales. An increase in self-efficacy is associated with a decrease in resilience.

**Coping**

The four coping (sub-scales) factors are all positive and significantly related to each other because they are all ways of coping hence they complement each other.

*Problem-focused coping* has a significant and positive relationship with helplessness.

*Emotion-focused coping* has a significant and positive association with competence and spirituality.

*Adaptive coping* has a significant and negative relationship with competence and control. This implies that an increase in adaptive coping is associated with a decrease in control and competence.

*Avoidant coping* has a significant and negative relationship with all resilient sub-scales except spirituality. It also has a significant and positive relationship with all the stress sub-scales. This implies that an increase in the use of avoidant-coping strategies is associated with a decrease in perseverance and positiveness and an increase in stress.

**Resilience**

Resilience sub-scales are all positive and significantly related to each other. Their high correspondence suggests that the scales measure the same basic dimension. All the resilience sub-scales are negatively related to all stress sub-scales. This implies that as each of the five sub-scales of resilience increase, the level of perceived stress decreases. The findings also imply that individuals who are highly competent and in control of their situations tend to
utilise less adaptive and avoidant-coping strategies.

**Religiosity**

Religiosity is positive and significantly related to all the resilience sub-scales. An increase in religiosity is associated with an increase in resilience. Religiosity has a significant positive relationship with emotion-focused coping. The findings imply that migrants with high religiosity tend to utilise emotion-focused coping strategies.

**4.5 Summary**

The analysis of data in this study showed an item mean of 2.4 for the perceived helplessness and 1.6 for perceived self-efficacy. The item mean scores of the resilience sub-scales ranged from 2.5 to 3.0 with competence and spirituality being the first and second frequently used attributes. Religion and planning were the most frequently used coping strategies and substance use was hardly used. A high religiosity of 7.8 on a 0-10 scale where 0 represents not religious to 10 representing very religious was also found. Significant differences in self-efficacy, emotion-focused coping and avoidant coping between males and females were found. Significant differences in religiosity between males and females, single and married as well as younger and older was also found.
Chapter Five: Discussion

The aims of the present study were to describe the levels of stress, coping and resilience, to examine the coping strategies utilised as well as to examine the relationship of these main variables to key demographic characteristics.

5.1 Stress

The process of migration from one cultural setting to another can be very stressful, with a potentially negative impact on psychological health (Bhugra & Jones, 2001). Moving from a place of origin to a new environment comes with new demands and challenges that may unsettle the individual’s psychological balance (Bhugra, 2004).

The findings of this study showed a mean of 20.6 (SD=7.3) for the Perceived Stress Scale. Several studies that have utilised the Perceived Stress Scale to describe the levels of stress of people facing different life challenges found, for example, a mean of 15.19 (SD=5.97) for hospital patients (Andreou et al., 2011), a mean of 13.99 (SD= 4.27) for depression patients (Wongpakarang & Wongpakarang, 2010), Cardiac patients had a mean of 15.2 (SD=4.4) (Leung, Lam & Chan, 2010), and HIV positive patients, parents of chronically ill children, substance abusers and university students who were left with 2 weeks to writing their examinations had a mean of 17.6 (SD=6.7) (Remor, 2006).

This study found a higher mean for perceived stress although the context and stressors may be different from the above-mentioned studies. As cited in Bernstein et al (2011) numerous studies have reported that migrants experience high stress and depression levels (Banks et al.,
2006; Gee et al., 2007; Lee, 2005; Miller & Chandler, 2002). An item mean of 2.4 for perceived helplessness representing ‘sometimes felt’ and an item mean of 1.6 for self-efficacy representing ‘almost never felt’ was also found in this study. This suggests that Zimbabwean migrants reported feeling helpless as they lack control and confidence in the face of challenges. Researchers reported that migrants are susceptible to migration-related stress and psychological health problems (Messias & Rubio, 2004; Steffen & Bowden, 2006; Tefere, 2015; Winkelman et al., 2013).

The present study showed a significant negative association between stress and resilience, implying that as resilience increases stress decreases. Aroian and Norris (2000) found a negative relationship between resilience and stress scores. They found that resilient migrants understood that being in a new environment comes with difficult situations that are unavoidable but that can be managed and adapted to.

5.2 Resilience

The findings from the present study showed a mean of 68.3 (SD = 18.9) for resilience. Other studies that have utilised the CD-RISC found a higher mean for the total scale, for example Connor and Davison (2003) found a mean of 77.1 and Ortell-Pierce (2011) found a mean of 91.3 for unemployed women. The lower resilience in this study may be attributed to the contextual differences of the studies and the inadequacy of protective factors such as social support, connectedness, supportive communities and networks that increase resilience in migrants (Bonanno & Diminich, 2013) as shown in the review of literature on the experiences of African migrants in South Africa (Dodson, 2010; Idemudia et al., 2013).
Masten (2001) noted that migrants’ resilience is a long-term process of adjustment to adversity that all individuals experience but some have more resources on which to draw than others. Adversity is likely to bring resilience and resilience may be activated by adversity (Rutter, 2012). According to Fayombo (2010), resilience is the ability to thrive, mature, and enhance one’s competence in the face of adversity. Luthar, Cicchetti and Becker (2000), found that individuals with a resilient personality were able to overcome stressful conditions (acculturation) thereby maintaining their psychological wellbeing. Resilience in this study was described using five factors which are: competence, spirituality, positiveness, control and perseverance (Connor & Davison, 2003).

*Competence* yielded the highest item score of 3.0 which implies that Zimbabwean migrants were often not discouraged by failure. It reflects the notion of individual capability, high standards and determination (Connor & Davison 2003). It is measured using eight items including (item 11) *you can achieve your goals* and (item 25) *you should have pride in your achievements*. There was a significant difference in perceived competence levels between the single and married participants whereby the single were more competent. In this study competence was positively related to spirituality and negatively related to helplessness. This implies that high competence was associated with high spirituality and low helplessness. Ortell-Pierce (2011) also found competence to be significant and positively related to spirituality. Competent individuals use an active approach to dealing with life situations to achieve their desired expectations and they have the capability to adjust positively (Masten, Burt & Coatsworth, 2006).

*Spirituality* was the second most endorsed resilience sub-scale in this study. It was measured by two items which are; (item 3) *sometimes fate or God can help* and (item 9) *things happen
Numerous authors have noted that spirituality provides comfort, strength, purpose and direction which contribute to a sense of wellbeing (Penman, 2012; Ellison & George, 1994; Tugade & Frederickson, 2004). In this study spirituality was significant and negatively associated with helplessness. Kamya (1997) found a negative significant relationship between spiritual wellbeing and stress. Van Cappellen, Toth-Gauthier, Saroglou and Fredrickson (2016) found that spirituality promotes better health behaviour and is positively associated with a health-promoting lifestyle. There was a significant and positive association between spirituality and religiosity in this study. This implies that an increase in spirituality was associated with an increase in religiosity.

According to Hill et al., (2000) religiosity and spirituality share common characteristics as they both involve a personal conversion, an encounter with divine existence, pursuit for ultimate truth and sanctified personal reality that may be of great importance in coping with migration stress. There was also a significant difference in spirituality between the 20-30year age and the 31-40year age. The older participants were found to be more spiritual than the younger participants.

**Control** and positiveness were the third most frequently used sub-scales with an item mean of (2.7). Control is measured by three items which reflect courage to take necessary steps to improve wellbeing and knowing where to find assistance that can effectively change unpleasant situations. This study found control to be significant and negatively associated with stress. This implies that high perceived control was associated with low stress. Numerous studies have found high control to be associated with low stress (Diehl & Hay, 2010; Hahn, 2000; Ong, Bergeman, Bisconti & Wallace, 2006).
Positiveness was measured using five items of the CD-RISC which reflect a positive acceptance of change and secure relationships. Positiveness creates positive emotions that allow individuals to recover from stressful events (Masten, 2001; Tugade & Fredrickson, 2004). In this study positiveness is significant and negatively associated with stress. The implication of this result was that high positiveness was related to low stress. Positiveness encourages and directs individuals to think about what they can do rather than concentrating on their weaknesses and frustrations. A positive individual believes that he/she can deal with whatever comes their way. (Connor & Davison, 2003).

Perseverance involves trusting in one’s instincts, tolerance to negative effects and strengthening effects of stress. This was the least endorsed resilience attribute in this study with a mean item of 2.5 which was almost the same as other factors. It is measured using seven items that include; (Item 7) coping with stress strengthens, (item 14) under pressure focus and think clearly and (item 18) I make unpopular or difficult decisions. This study shows a significant difference in perseverance between males and females. Males reported being more persistent and determined than females. The association among the resilience sub-scales shows that it measures the same phenomena and that they complement each other. All the resilience subscales in this study were occasionally used.

5.3 Coping

Findings from this study showed a mean coping level of 64.0 (SD =12.4) for the total scale. This suggests that Zimbabwean migrants were making attempts to cope with their difficult circumstances. The coping strategies utilised were obtained by looking at the item mean of the Brief COPE sub-scales. Religion which had an item mean of 3.2 (SD=1.69) was the most frequently used coping mechanism to deal with stressful situations. It was initially
categorised as an emotion-focused coping strategy (Carver, 1997) but later categorised as meaning-focused coping (Folkman, 1997; Park & Folkman, 1997). Similarly studies have found that migrants used emotion-focused coping to reduce stress (Chen et al., 2002; van der Ham et al., 2015; Wei et al., 2007).

According to *Zimbabwe Religion Statistics (2012)* the majority (85%) of Zimbabweans were Christians. Similarly van der Ham et al., (2015) reported that the most frequently used coping strategy among Philippine migrants was praying and reading the Bible. Hill et al., (2000) noted that individuals who hold strong religious beliefs are likely to be optimistic, hopeful and tend to have a better health status than the general population. A high mean of 7.8 (SD =1.9) for religiosity on a scale of 0-10 where 10 represents the highest level of religiosity was obtained in this study. Hagan and Ebaugh (2003) found that migration increases migrant’s spiritual consciousness and participation. Religiosity was found to be significant and positively related to resilience for females and negatively related to coping for males. This implies that Zimbabwean female migrants drew their resilience from prayer and meditation while males who were highly religious experienced less coping.

There was a significant difference in religiosity scores between the married and the single as well as 20-30 year age and 31-40 year age. This implies that married participants reported being more religious than the single and the older participants were more religious than younger participants. This study also found a statistically significant difference in religiosity and coping between males and females, whereby females reported coping better maybe because of their higher level of religiosity. Ting (2010) examined the coping strategies of African migrant women violence survivors and found that faith, spirituality and prayer formed the most crucial part of their stress-coping mechanism. These women also reported
the importance of churches and ministries in the provision of spiritual and emotional support in their lives. Batson, Schoenracl and Ventis (1993) found that females attended Bible studies more often than males. Beit-Hallahmi and Argyle (1997) concluded that Christian females are more religious than males. They suggested that socialisation and personality may explain these differences. Consistent with this study the religious differences may also be a reflection of cultural norms which define gender roles (Loewenthal et al., 2002).

Findings from this study also indicated that planning (trying to come up with a strategy and thinking hard about how to solve challenges they face) (items 14 and 25) and active coping (concentrating their efforts on taking action to make the situation they are in better) (items 2 and 7) are ranged second and third respectively. These two sub-scales are categorised as problem-focused coping (Carver, 1997). Noh and Kaspar (2003) found that Korean migrants living in Toronto reduced their stress effectively using the problem-focused coping. Consistent with this study women migrants from Ethiopia who also reported high levels of perceived stress used emotion (religious coping) and problem-focused coping (Terefe, 2015).

Substance and alcohol use (avoidant coping) was hardly utilised by Zimbabwean migrants in this study. An item mean of (1.1) means that these ‘have not been used at all’. This maybe because of the Christian doctrine that does not encourage alcohol and drug use. Contrary to these findings Finch et al., (2003) reported that high levels of exclusion, discrimination and employment frustrations pushed migrants to use alcohol to self-medicate themselves as a coping mechanism.

This study found a significant difference in the emotion-focused coping and avoidant-coping scores between males and females. Females reported using emotion-focused and avoidant coping more than males. Magaya, Asner-Self and Schreiber (2005) noted that the
Zimbabwean culture is dominated by beliefs and norms that promote passive roles for females while discouraging men to show their emotions. Males are taught that expressing emotions is a sign of weakness. Aldwin (2004) noted that culture does not only define the meaning of stress but it also generates perceptions and beliefs about the appropriateness of coping strategies. There was also a significant difference in the emotion and avoidant-coping scores between married and single participants. This suggests that married participants used emotion and avoidant coping strategies more than single participants. There was a significant difference in adaptive coping scores between participants in the 20-30-year age and 31-40-year age. The younger age group reported using adaptive coping more than the older age group.

5.4 Demographic differences.

Findings relating to age, length of stay, gender and religiosity were discussed to examine the relationship of stress to, coping and resilience in key demographic characteristics. However findings relating to religiosity and gender have been absorbed in the coping section above.

Age

Studies have shown variations in the relationship between age, stress, coping and resilience.

This study found no significant difference in stress, coping and resilience between 20-30 years and 31-40 years age groups. This maybe because the correlation coefficient was affected by the restriction of the age range of 20-40-years used in this study (Howell, 2012). Dodson (2010) found that the majority of participants from Zimbabwe reported migrating to South Africa to seek employment. This suggests that the age range of the majority of Zimbabwe migrants is restricted to the economically active group.
Some researchers have found significant negative associations between age and stress whereby an increase in age was associated with a decrease in psychological stress (Cohen & Janicki-Deverts, 2012; Lockenhoof et al., 2008; Msengi, 2003). Sumer et al., (2008) found that younger students experienced less acculturative stress possibly because they were more tolerant to a new culture than the older students were. However it is difficult to compare these findings as they examine different age ranges.

**Length of stay**

The literature review revealed variations in the relationship between length of stay, stress, coping and resilience. Findings for this study have shown no significant association with stress, coping and resilience. This may also be because of the restricted range of the length of stay (Howell, 2012). Several researchers have observed that the longer migrants stay in the host country the more they adjust and the less they experience acculturation stress (Baron-Epel & Kaplan 2001; Wang & Mallinckrodt, 2006; Steffen & Browden 2006). However, some researchers have found that the longer migrants stay in the new environment the more they lose control over challenges (Bennet, Rigby & Boshof, 1996; Kim et al., 2013)

### 5.5 Summary

The results of this study support previous studies that have shown high levels of stress and high resilience among migrants. Perceived helplessness was higher than perceived self-efficacy. The brief COPE inventory showed that this sample of Zimbabwean migrants frequently used emotion-focused coping (religion) later categorised as meaning-focused coping (Folkman, 1997; Park & Folkman 1997) and problem-focused coping (planning, active coping). Adaptive coping strategies such as substance and alcohol use were hardly used. Similarly, the literature review noted the use of various coping strategies mainly
emotion-focused coping, problem-focused coping and meaning-focused coping. Competence and spirituality were the most endorsed resilience factors. Significant gender differences were found in self-efficacy, emotional coping, avoidant coping and perseverance. Consistent with other studies religiosity and spirituality were found to be important in coping and resilience and females were shown to be more religious than males. However it is difficult to compare these findings with other studies as they examine different age ranges under varying migration contexts and circumstances.
Chapter Six: Summary, Conclusion and Recommendations

6.1 Summary

The aims of the present study were to describe the levels of stress and resilience, to examine the coping strategies utilised and to examine the relationship of these main variables in key demographic characteristics in a sample of 120 Zimbabwe migrants from the age of 20 years living in the Pinetown area.

Following the findings from the review of literature, results and discussion, this study has been found to support other studies in showing that migrants experience stress. Using the PSS-10, consisting of two sub-scales perceived helplessness was frequently felt as compared to self-efficacy. This sample of migrants was found to have a higher level of stress than other samples that were experiencing different stressors in varying contexts. This study has also shown that although migrants experience stress they also put some effort into managing their stressors. Participants used all resilience sub-scales to gain strength against migration adversities.

Stress and resilience were negatively related, implying that as resilience increases stress decreases. Competence and spirituality were the first and second most frequently used sub-scales respectively. Males were more persistent and competent than females while females had higher self-efficacy.

The most frequently used coping strategy in this study was religion which was categorised as meaning-focused coping (Folkman, 1997; Park & Folkman, 1997) with a high religiosity mean, suggesting that participants would pray to God and meditate whenever they face
challenges. The results show that religiosity and spirituality played an important role in the coping and resilience of these migrants. Religiosity was found to have a significant positive relationship with resilience, problem-focused coping and adaptive coping. Females had higher religiosity than males and this was significantly and negatively associated with stress, suggesting that females draw their resilience from religion and their high religiosity was associated with low stress. Younger participants had lower religiosity than older participants and single participants also reported lower religiosity than married participants. The second and third most frequently used coping strategies were planning and active coping which are categorised as problem-focused coping strategies (Carver 1997). Participants would try to come up with a strategy and to take action to make the situation they are in better. Substance abuse was found to be hardly ever used maybe because of the religious influence.

The study also showed no significant difference in stress and resilience scores across all the demographic variables. However coping scores for males and females showed a significant difference whereby females were coping better than males. There was also a significant difference in coping scores between single and married whereby married participants were coping more than the single ones. These differences may be attributed to higher religiosity among females and married participants.

6.2 Conclusion

In view of the escalation of migration across national boundaries, there is need to understand how migrants respond to and cope with migration-related stress as well as how their coping and resilience impact on their psychological well-being. This study is a deliberate attempt towards understanding stress, coping and resilience among migrants. It is hoped that this study will also trigger the need for further research to understand stress, coping, resilience
and their relationship to adjustment and adaptation for Zimbabwean (African) migrants. Further research would inform policy implementation for community organisations and governments to improve the wellbeing of migrants across the globe.

As the results indicate that religiosity and spirituality play an important role in providing positive emotions that may enable coping and resilience, religious institutions could integrate migrants into religious networks to maintain and strengthen their spirituality and religiosity. Health promotion programmes that aim to improve the mental wellbeing of migrants should also incorporate religious institutions and integrate spiritual themes with mental health promotion themes to keep migrants spiritually strong to help them cope with stress effectively. Intervention programmes at community level would be important to address social issues such as discrimination and xenophobia. Religious institutions could provide a safe space to encourage love, peace and harmony between migrants and citizens.

This study has shown that planning, active coping and competence are important in reducing stress among migrants. It is therefore important to provide knowledge and information on the rights of migrants, where to find different social services and where/how to apply for different types of permits. Non-governmental organisations, government departments and religious institutions should work together in the empowerment and capacity building of migrants by providing problem-solving skills and planning skills training to reduce anxiety, confusion, and desperation. Stress-relief programmes that aim to improve the wellbeing of migrants could also base their interventions on coping strategies and resilience attributes that were utilised by this sample of Zimbabweans.

**Limitations**

This study has shown meaningful results that may shed some light on stress, coping and
resilience among Zimbabwean migrants in South Africa. However there are limitations that are worth mentioning.

The sample size of 120 participants is too small to generalise the results to all Zimbabwean migrants across South Africa. Participants were obtained from one specific small town in South Africa which does not represent the socio-economic and cultural diversity that may influence opinions and attitude of all South Africans towards migrants.

Results of this study can only describe the level of stress, coping and resilience at the time of data collection as it was a once off procedure. This implies that different results may be found using the same sample if the same instruments were to be administered for the second time. This can be viewed in light of the Stress and Coping model (Lazarus & Folkman, 1984) which noted that appraisals may change as demands intensify or decline.

The cross-sectional methodology used in this study limits the potential to capture and understand the multidimensional, progressive nature of stress, coping and resilience. The scales used in this study are not specific to migration or migrants but are general and relevant to any population hence participants although they were instructed to respond in the context of migration may have responded using experiences that may not be related to migration challenges.

6.3 Recommendations

More research is required to examine and explore the psychological well-being of Zimbabwean (African) migrants in African countries to fill the existing gap as the literature review has clearly indicated that previous research among African migrants in South Africa has concentrated on the difficulties at the expense of understanding their adjustment, coping
and resilience.

There is need for more research across South Africa to examine how Zimbabwean migrants are coping and where they are drawing their resilience. Longitudinal studies that track migrants’ stress, coping and resilience behaviour across different stages of migration and acculturation are highly required in migration research.

A mixed-methods study will be more valuable as opposed to either a quantitative or a qualitative one. In addition to finding relationships between variables, the qualitative aspect would allow the researcher to find detailed explanations and individual accounts of how each of them felt and responded to migration stressors instead of providing responses to a series of items that are limited to a scale.

Culturally matching research, using suitable measures, paying attention to historical factors should be conducted to explore, capture and understand how Zimbabwean migrants express stress, coping and resilience.

Religion has been found to be the most utilised coping strategy. Spirituality has also been found to be the second most used resilience attribute yet the Brief COPE inventory and the CD-RISC only ask two questions each. More research that specifically focus on the influence of religiosity and spirituality on stress, coping and resilience among migrants is required. Following these findings, health promotion programmes should involve religious institutions in assisting migrants to cope with stress. Religiosity and spirituality provide comfort, hope and guidance (Penman, 2012) that may be important in the migration context where challenges are unavoidable.


Atri, A., Sharma, M., & Cottrell, R. (2007). Role of social support, hardiness, and
acculturation as predictors of mental health among international students of Asian Indian origin. *International Quarterly of Community Health Education*, 27(1), 59-73.


accounts of health and everyday life. Paper prepared for workshop 9.2: Gender, Stress and Migration. In 8th International Metropolis Conference, Vienna, Austria. University of British Colombia


Löckenhoff, C. E., Costa Jr, P. T., & Lane, R. D. (2008). Age differences in descriptions of


Psychologist, 56(3), 227-238.


Terefe, N. *Perceived Stress, Coping, and Resilience of Ethiopian Women Labor Migrant Returnees from the Middle East Countries* (Doctoral dissertation, Addis Ababa)


Appendices

Appendix A: Request for letter of permission to the gatekeeper

Bongani Mupungose
The Councillor
Mezzanine Floor Shell House
Cnr Anton Lembede & Samora Michel
P O Box 1014
Durban 4000

09 March 2016

Dear Sir

RE: Permission to use a sample of Zimbabweans living in Pinetown as participants in Masters Health Promotion Research Dissertation.

I am interested in conducting research on stress, coping and resilience in a sample of Zimbabweans living in Pinetown as part of my Health Promotion Research dissertation. The study aims to explore the experiences of Zimbabwean migrants living in South Africa. Stress among migrants is common as they may involve breaking from family and an established social network, having to adapt to a new social environment. Stress has been reported to cause serious health problems such as depression, anxiety and other related mental disorders. (Folkman & Moskowitz, 2004). A structured questionnaire consisting of demographic information, Perceived Stress Scale, Connor-Davidson Resilience Scale and Coping Orientations to the Problems Scale is going to be used to measure stress coping and resilience. The questionnaire is expected to be completed in about 30 minutes. Ethical Clearance will first be obtained from the Social Science Ethics Committee of the University of KwaZulu-Natal. Your agreement to this study will greatly be appreciated.
For more information and clarity please feel free to contact me or my supervisor.

Yours faithfully

Mayana Makiwa

Email: vashmakie@gmail.com  Cell no: 0718140925

Supervisor: Mrs Cynthia Patel

Email: patelc@ukzn.ac.za  Tel: 0312607619
Appendix B: Ethical Clearance from the University of Kwazulu Natal
Appendix C: Participant Informed Consent Letter

Mayana H. Makiwa (216073225)
Health Promotion Masters.
Social Sciences, College of Humanities,
University of KwaZulu-Natal,
Howard Campus,

Dear Participant

My name is Mayana Makiwa. I am a Health Promotion Masters candidate studying at the University of KwaZulu-Natal, Howard campus, South Africa. I am interested in exploring the experiences of Zimbabwean migrants living in South Africa. This study will focus on stress, coping and resilience in a sample of Zimbabweans living in Pinetown. To gather the information, I am interested in asking you some questions where you are required to fill in a structured questionnaire.

Your confidentiality is guaranteed as your name will not be written on your completed questionnaire. The interview may last for about 30 minutes. Any information given by you cannot be used against you, and the collected data will be used for purposes of this research only. Data will be stored in secure storage and destroyed after 5 years. You have a choice to participate, not participate or to stop participating at any stage in the research. You will not be penalized for taking the latter action. The research aims to examine the level of stress, coping and resilience as well as the strategies used to cope with experiences related to migration. You will be invited to attend a group session to inform you the outcome of the study. Your involvement is purely for academic
purposes only, and there are no financial benefits involved.

For more information contact Mayana Makiwa researcher at

Email: vashmakie@gmail.com   Cell: 0718140925

**My supervisor:** Mrs. Cynthia Patel, Howard campus of the University of KwaZulu-Natal.

Email: patelc@ukzn.ac.za   Phone number: 0312607619

**University of Kwazulu Natal Ethics Committee**

Ms. Mariette Snyman: Research Office HSSREC-Ethics

Email: synmanm@ukzn.ac.za   Phone number: +27312608350

**Participant Declaration**

I………………………………………… (Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project. I consent to participating and understand that I am at liberty to withdraw at any time, should I so desire.

Participant signature                                      Date

……………………           ………………
Appendix D: Questionnaires

Thank you for your willingness to participate in this research study. The success of the research depends on you answering the questions as honestly as possible. This questionnaire has four parts and you are requested to read each question carefully and to follow the instructions in each section as they differ.

**Part One. Demographic questionnaire**

Please complete the following questionnaire by crossing the box that represents your correct required information.

For example

1. Gender
   - Male
   - Female

2. Marital status
   - Single
   - Married
   - Divorced
   - Widowed

3. Age
   - 20-25
   - 26-30
   - 31-35
   - 36-40
   - 41-45
   - 46+

4. Religion
   - Christianity
   - African tradition
   - Other(specify)

5. On a scale from 0 to 10, where 0 indicates ‘not at all religious’ and 10 indicates ‘extremely religious’, how would you rate yourself?
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10

6. Employment status
   - Employed
   - Unemployed
   - Self-Employed
7. Duration of stay

<table>
<thead>
<tr>
<th></th>
<th>1-2 years</th>
<th>3-4 years</th>
<th>5-6 years</th>
<th>7-8 years</th>
<th>9 +years</th>
</tr>
</thead>
</table>

Please answer the following questions with specific reference to your migration experiences in South Africa.

Part Two: Perceived Stress Scale

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 crossing the number that best describes how often you felt or thought a certain way.

<table>
<thead>
<tr>
<th>Question</th>
<th>0 Never</th>
<th>1 Almost Never</th>
<th>2 Sometimes</th>
<th>3 Fairly Often</th>
<th>4 Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In the last month, how often have you been upset because of something that happened unexpectedly?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. In the last month, how often have you felt that you were unable to control the important things in your life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In the last month, how often have you felt nervous and “stressed”?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. In the last month, how often have you felt confident about your ability to handle your personal problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. In the last month, how often have you felt that things were going your way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. In the last month, how often have you found that you could not cope with all the things that you had to do?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. In the last month, how often have you been able to control irritations in your life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. In the last month, how often have you felt that you were on top of things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. In the last month, how often have you been angered because of things that were outside of your control?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?  

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Part Three: The Brief COPE**

This questionnaire asks you to indicate what you generally do and feel when you experience stressful events. Think about what you usually do when you are under a lot of stress. Respond to each of the following items by crossing the corresponding number that best applies to your response below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Haven’t been doing this at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I’ve been doing this a little bit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I’ve been doing this a medium amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I’ve been doing this a lot</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|   |   |   |   |   |
|---|---|---|---|
| 1. I’ve been turning to work or other activities to take my mind off things. | 1 | 2 | 3 | 4 |
| 2. I’ve been concentrating my efforts on doing something about the situation I’m in. | 1 | 2 | 3 | 4 |
| 3. I’ve been saying to myself “this isn’t real”. | 1 | 2 | 3 | 4 |
| 4. I’ve been using alcohol or other drugs to make myself feel better. | 1 | 2 | 3 | 4 |
| 5. I’ve been getting emotional support from others. | 1 | 2 | 3 | 4 |
| 6. I’ve been giving up trying to deal with it. | 1 | 2 | 3 | 4 |
| 7. I’ve been taking action to try to make the situation better. | 1 | 2 | 3 | 4 |
| 8. I’ve been refusing to believe that it has happened. | 1 | 2 | 3 | 4 |
| 9. I’ve been saying things to let my unpleasant feelings escape. | 1 | 2 | 3 | 4 |
| 10. I’ve been getting help and advice from other people. | 1 | 2 | 3 | 4 |
| 11. I’ve been using alcohol or other drugs to help me get through it. | 1 | 2 | 3 | 4 |

93
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12. I’ve been trying to see it in a different light, to make it seem more positive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. I’ve been criticizing myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. I’ve been trying to come up with a strategy about what to do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. I’ve been getting comfort and understanding from someone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. I’ve been giving up the attempt to cope.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. I’ve been looking for something good in what is happening.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. I’ve been making jokes about it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. I’ve been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20. I’ve been accepting the reality of the fact that it has happened.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. I’ve been expressing my negative feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22. I’ve been trying to find comfort in my religion or spiritual beliefs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23. I’ve been trying to get advice or help from other people about what to do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24. I’ve been learning to live with it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25. I’ve been thinking hard about what steps to take.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26. I’ve been blaming myself for things that happened.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27. I’ve been praying or meditating.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28. I’ve been making fun of the situation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
**Part Four: Connor-Davison Resilience scale**

How have you felt over the past month? Respond to each of the following items by crossing the corresponding number that best applies to your response below.

<table>
<thead>
<tr>
<th></th>
<th>0 Not true at all</th>
<th>1 Rarely true</th>
<th>2 Sometimes true</th>
<th>3 Often true</th>
<th>4 True nearly all of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Able to adapt to change</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Close and secure relationships</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Sometimes fate or God can help</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Can deal with whatever comes</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Past success gives confidence for new challenge</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. See the humorous side of things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Coping with stress strengthens</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Tend to bounce back after illness or hardship</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Things happen for a reason</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Best effort no matter what</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. You can achieve your goals</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. When things look hopeless, I don’t give up</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Know where to turn for help</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Under pressure, focus and think clearly</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Prefer to take the lead in problem solving</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>16. Not easily discouraged by failure</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. Think of self as strong person</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. Make unpopular or difficult decisions</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. Can handle unpleasant feelings</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20. Have to act on a hunch</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. Strong sense of purpose</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22. In control of your life</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23. I like challenges</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24. You work to attain your goals</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25. Pride in your achievements</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>